

A MALE HEALTH CURRICULUM FOR FAMILY MEDICINE RESIDENCY TRAINING
PROGRAMS IN CANADA

A Dissertation Submitted to the College of
Graduate Studies and Research
In Partial Fulfillment of the Requirements
For the Degree of Doctor of Philosophy
In the Department of Health Sciences
University of Saskatchewan
Saskatoon

By

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ABSTRACT

Men die earlier than women in the majority of the countries in the world, including Canada. Men also seek medical care less frequently than their female counterparts and often rather late in the stage of their disease. As well, family physicians traditionally have had very poor, if any, training in male health issues during their residency training. This is true for Canadian family physicians, but also for most family physicians in the world. A literature search was performed to evaluate the training in male health issues around the world. There appears to be a scarcity of literature on this topic.

An assessment was conducted to determine how much male health training is delivered in Canadian Family Medicine Residency Training Programs. It turned out to be none to very little in these programs. At the same time, a needs assessment was conducted to determine the need for male health training in these programs and what the content of such training should be.

Based on the information obtained through this needs assessment, a draft male health curriculum was created and circulated to an Expert Panel for their critique. The feedback of the Expert Panel was then incorporated into the final version of a proposed curriculum on Male Health for Family Medicine Residency Training Program.

ACKNOWLEDGMENTS

I want to acknowledge God for the talents that He has given each and every one of us and thank Him for the help that I have received throughout this process.

My Student Advisory Committee deserves special acknowledgement for the guidance I received from them: Dr. Vivian R Ramsden (Co-supervisor), Dr. Gill White (Co-supervisor), Dr. Trevor Gambell, Dr. Meredith McKague and Dr. Keith Walker. A special thank you also needs to go to the Chair of my Committee, Dr. Angela Busch and to Angie Zoerb.

I want to thank all the family physicians who took part in Focus Groups, as well as the numerous Program Directors and Site Directors who had to complete yet another survey or interview. I also want to thank the members of the Expert Panel who critiqued my proposed curriculum.

Lastly, I want to thank my family who supported me throughout these years and had to go many evenings and weekends without a husband, father and son.

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LIST OF ABBREVIATIONS

<u>Abbreviations</u>	<u>page</u>
MeSH Medical Subject Headings	9
USA United States of America	10
UK United Kingdom.....	10
EBM Evidence Based Medicine.....	11
OBE Outcome Based Education.....	11
CFPC College of Family Physicians of Canada	12
SPSS Statistical Product and Service Solutions	27
IMG International Medical Graduate	38
ISRN International Scholarly Research Network	42
MATeS Men in Australia Telephone Survey	44
BPH Benign Prostatic Hyperplasia.....	48
STI Sexually Transmitted Infections	48
UTI Urinary Tract Infections.....	48
ENT Ear Nose and Throat	49
LOH Late Onset Hypogonadism.....	51
MSM Men who have Sex with Men	62
DRE Digital Rectal Examination.....	65
OSCE Objective Structured Clinical Examinations.....	70
SAMP Short Answer Medical Problem.....	73
SOO Subjective Office Oral	73
PBSGL Practice Based Small Group Learning	110



SECTION 1

BACKGROUND

INFORMATION

1. INTRODUCTION

“What knowledge is of most worth?”

Herbert Spencer. 1966 [1]

1.1 Qualifications

The question might arise why I propose a curriculum in male health for family medicine training in Canada. I have been a family physician for the past twenty years and have been involved in family medicine residency training for the largest part of my career. For the last seven years, I have been actively involved in family medicine training in Saskatchewan, first as Saskatoon Site Director and then as Academic Curriculum Coordinator for the provincial family medicine training program.

My interest in male health, and specifically sexual and reproductive health, has grown over the years. I was always amazed at the amount of information that was taught to medical students and practicing physicians in the field of women’s health, but the total lack of quality education in the field of male health. This obvious disparity has motivated me to attend numerous Continuing Medical Education events in the area of male health: local, national and international.

This extra training, as well as extra reading in all matters regarding male health, has now lead to numerous invitations to speak at seminars, conferences and workshops. I have also published several peer-reviewed and non-peer reviewed publications on topics such as: erectile dysfunction, circumcision, vasectomies and hypogonadism (andropause).[2-6]

1.2 Motivation for research

As I have gained some expertise in the field of male health (relative to most of my family physician colleagues), I have been consulted on several of these problem areas. This has led me to believe that there was a need for better training of family physicians in the area of male health. Although some of the problems that I deal with might be seen as in the domain of the specialists, I believe that family physicians are in the best position to manage a number of the most common problems. Family physicians are quite often the first line of contact that a male patient has with the health care system. And it is well known that men are not apt to visit the doctor too often.[7,8] It is therefore important that the family physician be equipped to deal with any issue with which a male patient might present.

1.3 Contrast between male health and women's health

Women all over the world live longer than men.[9,10] In Canada in 2007, the life expectancy from birth, of men, compared to women, was 78.3 years compared to 83 years.[9,10]. Various postulations are offered as to why this is the case. The risky behaviour of men was cited as one reason, but that, for instance, would not explain the difference that was seen with smoking related illnesses where it is now known that the health burden for females who smoke is more than that for males.[11] Traditionally, men have not sought medical attention as early nor as frequently as women; thus, were less likely to take part in preventative health care. However, this is changing as men become more engaged in their own health and are more aware of preventative health care in general.[8] As men decide to go to their doctors more frequently, the question arises as to whether or not their doctors will be equipped to meet their health needs.

1.4 Dissertation structure

This is a manuscript-style dissertation with three published manuscripts included. Due to the complicated nature of dissertations of this sort, the dissertation is divided into Sections and Chapters. There are eight chapters in this dissertation, which have been divided into five sections. (Figure 1.1)

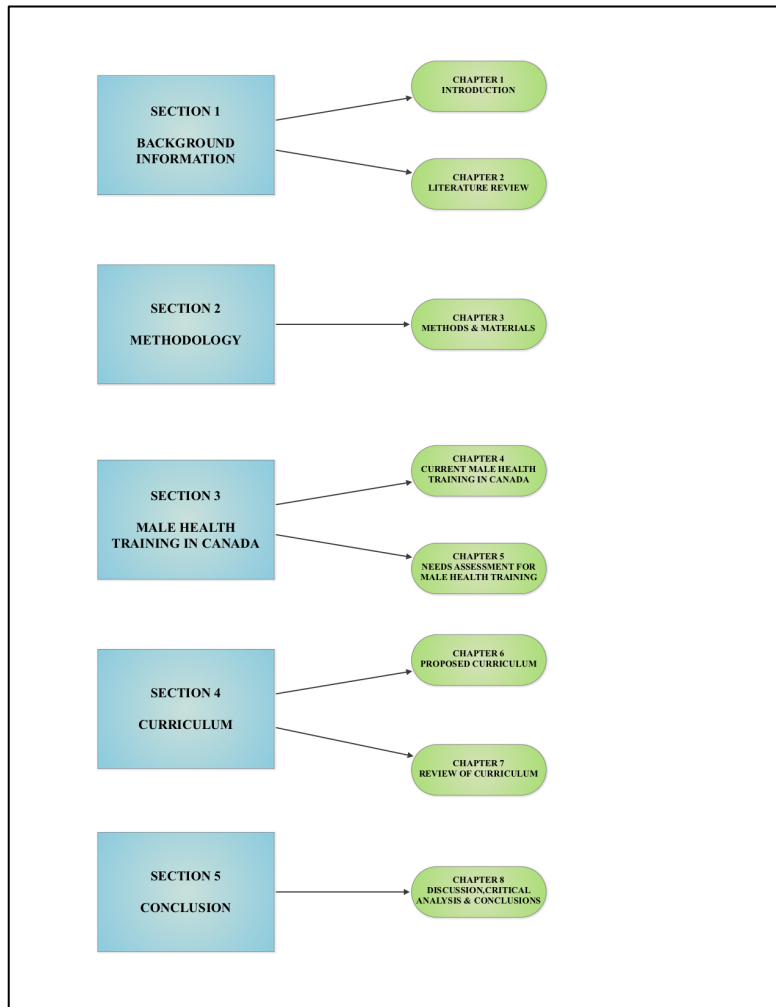


Figure 1.1. Dissertation structure.

Section One contains the background information and consists of two chapters. Chapter 1 is a short introduction aimed to put the need for this research in perspective; as well, as to provide evidence of the author's competence to perform research in this field. Chapter 2 is a literature

review of the current state of affairs in family medicine curriculum in Canada, as well as the existence of male health curricula in Canada and in the rest of the world.

Section Two deals with the methodology used in this project. Since the details of the methodology for the different aspects are different and since it is discussed in more detail in the stand-alone manuscripts, only an overview of the methods and procedures will be given in the only chapter in this section, Chapter 3.

Section Three contains two chapters, 4 and 5, and focuses on the various aspects of male health teaching in family medicine training programs in Canada and in the rest of the world. Chapter 4 deals with how male health is taught currently in Canada and Chapter 5 examines the perceived need for such training for family physicians.

Section Four has two Chapters, 6 and 7. Chapter 6 proposes a curriculum for male health training in family medicine programs and Chapter 7 summarizes the Expert Panel's opinion of the proposed curriculum.

Finally, Section Five contains Chapter 8, which ties everything together by offering a discussion, critical analysis of the entire research project and a summary.

There are six Appendices at the end. Appendix A is a copy of the survey that was sent to Program Directors. The revised version of the proposed curriculum is presented in Appendix B. Appendices C, D and E are copies of the letters received from three journals, giving permission to use the copyrighted articles in this dissertation. Appendix E concludes with a copy of the Application for Approval of Research Protocol submitted to and subsequently approved by the University of Saskatchewan's Behavioural Research Ethics Board. A copy of the Certificate of Approval is also included.

The “Wordle” on page IX is a form of a summary that highlights the 100 most commonly used words in this dissertation. The size of the font represents the frequency that a particular word was used in the dissertation.

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2. LITERATURE REVIEW (Manuscript 1)

A Review of Male Health Curricula in Medical Schools.¹

Manuscript information

In order to start the journey on exploring the need for a male health curriculum in family medicine training, it was necessary to explore the literature on this topic. This was undertaken and was presented in the following article that was submitted to the American Journal of Educational Research on January 6, 2013. This journal is a peer-reviewed, open-access, online journal and the manuscript was accepted on May 2, 2013 with minor revisions after the first review. The article was published online on May 12, 2013.

The student was the principal author of the article and planned, created, reviewed and submitted the article. The co-authors were the co-supervisors of the student and represented the Research Advisory Committee of the student as per the Faculty-Student Agreement of the School of Graduate Studies and Research at the University of Saskatchewan. The entire Research Advisory Committee reviewed drafts of the manuscript and provided feedback for consideration.

Permission to insert the article in this dissertation was requested from the American Journal of Educational Research and the response is attached as Appendix C.

Abstract

The goal of this review was to search for information about postgraduate education in medical schools and family medicine residency training programs on the topic of male health.

¹ The full citation of this chapter is: Muller AJ, Ramsden VR, White G. A Review of men's health curricula in medical schools. American Journal of Educational Research. 2013;1(4)115-8.

The databases Medline, Embase, Web of Science, Scopus and PubMed were searched using MeSH terms such as “male”, “health education”, “curriculum” and “family physician” and “general practitioner”. Other types of literature and ephemera were also reviewed using the same search terms.

With the help of a Health Librarian at the University of Saskatchewan, three articles were identified initially. By exploring the references of these articles, as well as with documents found on various websites, a total of 108 articles and nine textbooks were in the end reviewed.

The literature found, were divided and analyzed in three distinct categories: curriculum in general, family medicine curriculum in Canada, and the current status of male health training in the world.

There is a paucity of literature on the topic of male health education in Canada. Other countries such as Australia have done some work in this field but the details of the specific curriculums are lacking.

Keywords: Male, Health education, Curriculum, Family physician

2.1. Introduction

Men die younger than women – that is simply a fact.[1,2] It is also true for the Canadian context according to Statistics Canada as reported in 2007.[3]

But what is male health? Fletcher paraphrased the United States Public Health Service Action Plan for Women’s Health by stating that “A men’s health issue is a disease or condition unique to men, more prevalent in men, more serious among men, for which risk factors are different for men or for which different interventions are required for men.”[4](p.68) Examples of a unique disease in men would be prostate cancer, ischemic heart disease (more prevalent), osteoporosis (more serious) and sexual dysfunction (different treatment options).

During the course of a medical doctor's training, considerable time is spent on the teaching of medical issues related to women's health. The specialty field of Obstetrics and Gynecology is mainly responsible for teaching many of these issues. Currently, a minimum of three months out of a possible 24 months is dedicated to women's health in the urban family medicine training programs in Saskatchewan. This is comparable to most family medicine training programs in Canada. Almost no time is set aside for the teaching of medical issues unique to men. Some might say that this is the responsibility of the Urologists; however the field of Urology is not limited to dealing with problems of men only. In a typical family medicine residency program, most residents would not complete any training time in Urology.

2.2. Data sources

A review of traditional, as well as gray literature and ephemera was undertaken using search terms such as: "male", "health education", "curriculum" and "family physician" and "general practitioner". Databases used include PubMed and Medline, as well as a general search in Google Scholar. Websites of different family medicine training programs in Canada, the USA, Australia and the UK were also explored to find documentation on their curriculum. Lastly, references of various articles and textbooks on medical education were scanned for other possible references that could be used.

2.3. Study selection

Initial search of Medline, Embase, Web of Science, Scopus and PubMed, using the MeSH terms mentioned above, produced the same two to three documents, all of which have been used in this review.[5-7] The references in these articles and website documents were scanned for

more articles that might be relevant and those articles' references were also reviewed and so on. In the end, a total of 108 articles and nine textbooks were reviewed.

2.4. Synthesis

The goal was to find and critically appraise publications that addressed the topic of male health curricula in family medicine training programs. Since this was not a straight forward task, the literature that were found, were divided and analyzed in three distinct categories: curriculum in general, family medicine curriculum in Canada and the current status of male health training in the world. These categories will now be discussed in more detail.

2.5. Discussion

2.5.1 Curriculum

It is difficult and even contentious to try and define what a curriculum is and/or should be. I use the term 'contentious' because a definition often puts limitations or boundaries on an idea.

Since the current practice of medicine is focused on the concept of EBM or "Evidence Based Medicine", it was only natural that medical education should follow the same trends. It was on this notion that Spady promoted the concept of "Outcome Based Education" or OBE.[8]

According to Harden, Spady defined OBE as "a way of designing, developing, delivering and documenting instruction in terms of its intended goals and outcomes".[9](p.37) Harden went further and categorized the learning outcomes in a number of domains or skills.[9] In a similar fashion, the Royal College of Physicians and Surgeons of Canada developed a framework with seven physician roles – the so-called CanMEDS Physician Competency Framework.[10]

2.5.2 Family Medicine Curricula in Canada

The College of Family Physicians of Canada (CFPC) has, until recently, relied on individual programs to create their own curricula based on the Standards for Accreditation of Residency Training Programs – the so-called “Red Book”.[11] Based on these standards, programs were expected to incorporate goals and objectives for different areas of family medicine, such as “Care of the Elderly”, “Care of Adults”, “Palliative and End of Life Care”, etc. These goals and objectives had to be specific in the domains of knowledge, skills and attitudes and were expected to line up with the “Four Principles of Family Medicine” which are:

1. The family physician is a skilled clinician;
2. Family medicine is community based;
3. The family physician is a resource to a defined practice population, and
4. The doctor-patient relationship is central to the role of the family physician.

The individual programs had to stipulate what methods were to be used for evaluating residents. Little detail was given as to how these goals and objectives were to be achieved.

Each of the seventeen medical schools in Canada has a family medicine residency training program that is responsible for the training of family physicians. This program has a minimum duration of two years and follows medical school. The curricula of these programs are mostly based on the standards for accreditation, set by the College of Family Physicians of Canada. (The Red Book)[11]² A relevant quote from these standards reads: “To provide effective care, residents must become knowledgeable about the special health care requirements specific to men and women.”[11](p.16). Another relevant quote states that “Residents must be well acquainted with important physical and psychosocial aspects of male and women’s health care, including

² Please note that since the publication of this manuscript, the College of Family Physicians of Canada has updated their “Red Book”. A copy of the new standards is available on their website: www.cfpc.ca

occupational health, family planning, spousal abuse, sexual assault, and sexual abuse. Residents must become familiar with gender-based differences in the management of common health problems in men and women.” [11](p.17)

In 2004, the College of Family Physicians of Canada published a document, “Family Medicine in Canada, “Vision for the Future”. [12] In response to some of the recommendations made in the document, a Working Group was created to review the Postgraduate Curriculum. In March 2011, this Working Group published a report, entitled: “Triple C Competency-based Curriculum”. [13] This outlined a curriculum that would be competency-based and was comprehensive, focused on continuity, and centered in family medicine. The CanMEDS-FM framework was used as a guide to develop this curriculum. [14]

Competency-based medical education is “an approach to preparing physicians for practice that is fundamentally oriented to graduate outcome abilities and organized around competencies derived from analysis of societal and patient needs”. [15] The CanMEDS-FM roles are defined as: Family Medicine Expert, Communicator, Collaborator, Manager, Health Advocate, Scholar and Professional. [14]

2.5.3 Current status of male health training globally and in Canada.

An extensive literature review was undertaken to better understand the status of male health curricula in medical training programs around the world and then specifically in Canada.

Although the body of literature on male health is rapidly growing, little was written on the education of male health in medical school curricula. The majority of the literature on these topics came from Australia [16,17] with some from the Netherlands, [5] and the United Kingdom. [18] Studies in North America seem to focus on the education of more specific issues – particularly that of homosexual and bisexual men. [19] Both the Royal College of General

Practitioners (UK) and the Royal Australian College of General Practitioners created documents in 2007 that addressed a curriculum specific to the male sex.[18,20] The Department of Family Medicine at the University of Pennsylvania created a document entitled: “Recommended Curriculum Guidelines for Family Medicine Residents”, which was endorsed by the American Academy of Family Physicians.[6] This document had some reference to male health.

Rankin quotes Siebke in his article when he states that most women would know that problems related to being a woman are mostly dealt with by the specialty of Obstetrics and Gynecology.[21] This is not the case for men. Andrology has been proposed as the medical sub-specialty that should manage most of the reproductive problems of men, and has attracted physicians from urology, endocrinology, internal medicine, dermatology, gynecology and geriatrics.[21]

The study of “Andrology” is however too focused as it concentrates on the basic sciences of male physiology. One has to agree with Rankin that “As gynecology has done, this subspecialty should expand and move beyond male reproductive health and establish itself as a specialty encompassing all gender-specific aspects of male health: from mental health and psychosocial aspects to physical health.”[21](p.48). Rankin coined the term “modified andrology” that would include more than just reproductive health.

Australia is without doubt the country that has so far set the standards for male health in the world. In 2001, the Australian government established “Andrology Australia” to increase the level of awareness about male reproductive issues.[22] Australia was also the first country to have a dedicated men’s health nurse practitioner.[23] This was a very positive step forward. It was mentioned already that most people believe that Urology should be the field that deals with male health. Urologists are without doubt more equipped to deal with the more complex issues

around male renal and reproductive systems, but the argument has already been made that male health consists of more than just their sexual function. Family Medicine is the discipline that deals with individuals of both sexes, all ages and during all stages of their life cycles.

“Comprehensive care is an important tenet of family practice and involves full-service health care of both sexes and all ages ‘from conception to resurrection.’ Because Family Physicians emphasize that the patient should receive appropriate care at the right place and at the right time, they place a high premium on coordinated care.”[23]

The content of a male health curriculum is of much debate. There is disconnect between what services health care providers think should be offered at a “men’s health clinic” and what patients think. Patients of different ages also have different needs when it comes to their health. [19,21,25,26]

There were a huge variety of approaches to defining the content of the curricula in medical schools that do offer a male health curriculum. On the one end of the spectrum, the male health curriculum of the Royal Australian College of General Practitioners was very general in its approach and does not go into detail concerning the different topics that should be covered.[20] Only examples of conditions are given under the five domains of general practice: communication skills, applied professional knowledge, population health, professionalism and ethics, and organizational and legal dimensions.

On the other end of the spectrum, the American Academy of Family Physicians published recommended curriculum guidelines for family medicine residents.[6] In its document on men’s health, there were long lists of conditions that can affect male health but are not unique to males.[6] As another example, the Hawaiian Residency Program website included a men’s health curriculum listed under the Internal Medicine program.[27] No mention was made in this

curriculum of conditions that affect young boys and their pediatric program did not contain anything specific to male health.

All of the curricula have one thing in common: very little information was given on how the students will acquire the stated objectives listed in the documents. It is one dimension to determine what skills should be acquired but a different yet complementary dimension to ascribe how they might or should be acquired.

A further aspect of any curriculum is that of assessment. First, there is the assessment of the learner but also then the assessment of the curriculum. Harden simplified the various aspects of learner assessment into six questions: who, why, what, how, when and where. [9] Various tools can be employed to assess learners, such as written exams, clinical exams, observations, peer assessments and portfolios to name just a few.[28] Whatever method of assessment is chosen in the end, it should align with the type of curriculum used – in the case of Family Medicine Residency Programs, a competency based curriculum. Assessment of the curriculum is discussed in Chapter 6.

2.6. Conclusion

Education in male health appears to be a neglected topic in practice, as well as in the literature. Efforts have been made by some medical schools in the world to focus some attention on the unique issues that affect men and how they can optimally be taught to medical students and residents. The curricula however lacks detail on male specific problems and procedures, as well as, exactly how such content could be optimally taught to future physicians and be evaluated.

At the end of this section, it was clear that there seemed to be a paucity of literature on what was happening in Canadian medical schools when it came to male health curriculum. The

methods and procedures that were followed to explore the current situation of male health training, as well as the perceived need for such training, will be discussed in the next section.

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SECTION 2

METHODOLOGY

3. METHODS AND MATERIALS

3.1 Introduction

A literature review was undertaken before the start of the research study. The detail of the methodology of how the literature review was done was discussed in Chapter 2. Because of the scarcity of literature on the topic of male health training for physicians, as many sources as possible were used in the search. A librarian at the University of Saskatchewan was also consulted to help focus the search. The majority of time was spent looking for and at the websites of different training programs. As is the nature with websites, these sites are being updated on a continuous basis and were difficult to cite as references.

The design of the research project was divided in three phases in order to organize the different aspects of the project. Right from the onset, it was expected that the various sample sizes were going to be small and for that reason, a mixed methodology design was chosen.[1] The different components of the project had different emphasis on either the qualitative and quantitative aspects and will therefore be discussed under the different phases.

The detail of the different methodologies has been described in other chapters as well, as they were prepared as stand-alone manuscripts for the purpose of publication in peer-reviewed journals. A general overview will however be provided in this chapter.

The overall method used in the entire project was that of action research, using case studies in some aspects. Action research is a method often used in teaching settings such as schools, colleges and universities.[2] This method facilitates researchers finding solutions to everyday problems in instructional and learning environments. In this case, it was used to solve the perceived need of a male health curriculum in family medicine training programs. The intent of this method of research is to facilitate change in an organization. But action research is not just

about problem solving. Ferrance puts it very elegantly as “a quest for knowledge about how to improve.”[2] That being said, action research methodology proved to be very successful in moving the entire project through the three phases as described below.

Phase 1 of the project focused on information gathering, both regarding the existing teaching of male health in family medicine training programs, as well as, the perceived need for male health training in family medicine. Phase 2 involved the creation and design of a proposed male health curriculum for family medicine training programs in Canada. The proposed curriculum was circulated to an Expert Panel in Phase 3 to critically appraise the proposed curriculum. (Figure 3.1.).

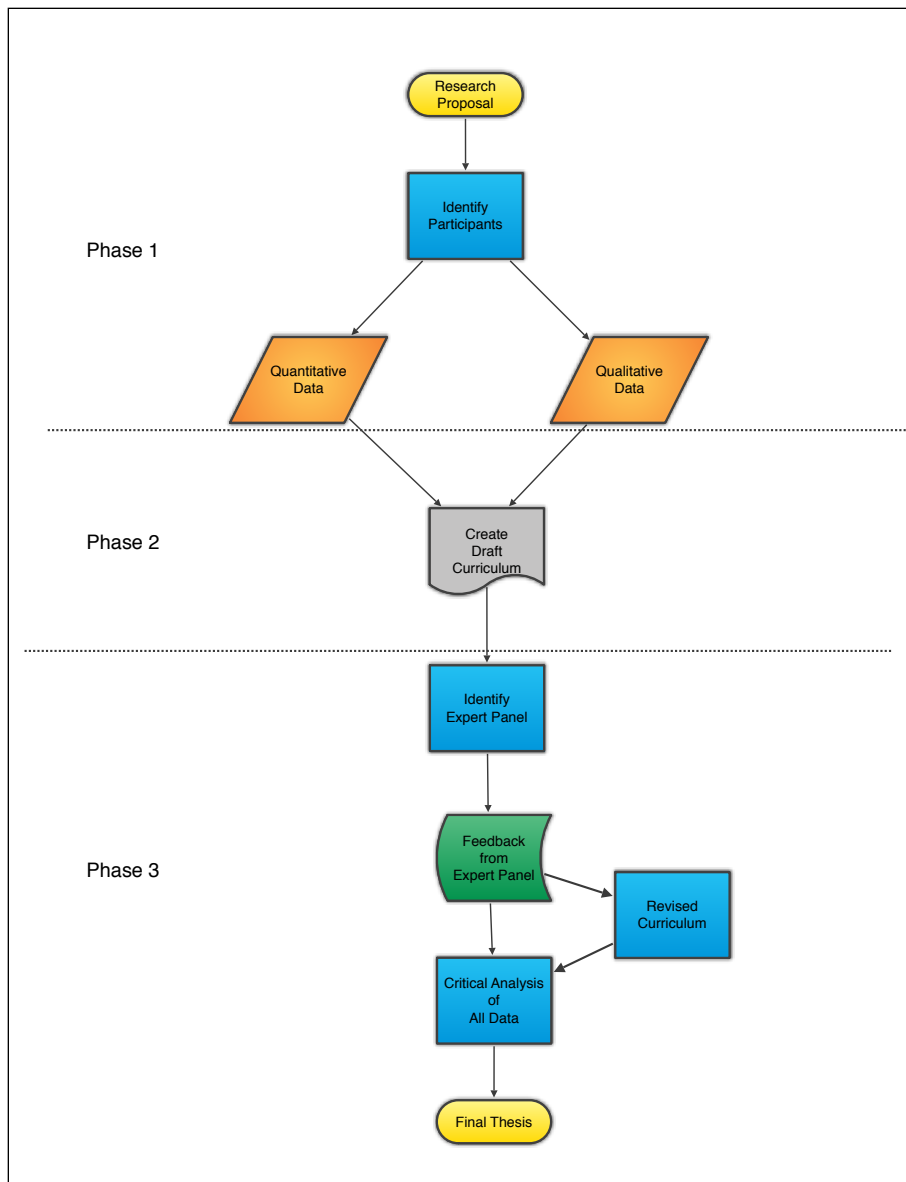


Figure 3.1. Workflow for the research project.

A Certificate of Approval was received from University of Saskatchewan's Behavioural Research Ethics Board prior to starting this research endeavour. (Refer to Appendix F.)

3.2 Phase 1

Phase 1 consisted of information gathering. The first wave was a survey of the Program Directors of the 17 family medicine residency-training programs in Canada. This was followed by one-on-one interviews with selected Program Directors. Finally, two Focus Groups were held with practicing family physicians.

3.2.1 Surveys.

There was not an existing survey tool that could be used to survey family medicine training programs about their incorporation of male health in their curriculum. A *de novo* survey was therefore created. (See Appendix A.) The components of the survey are: demographic information of the program, inclusion and description of how the health of men and women is taught in the program, lists of possible topics and procedures of male health based on a literature review and finally an open area for comments.

A list of names of all the Program Directors of the 17 family medicine residency training programs was obtained from the College of Family Physicians of Canada's website, along with their respective e-mail addresses. The surveys were then distributed in a fillable .pdf. format to these Program Directors. Responses were received in both paper- and electronic format.

3.2.2 Interviews with Program Directors.

The initial plan was to select a sample of Program Directors based on their responses to two questions: Do they have a male health curriculum? and Do they think there is a need for such a curriculum? A sampling matrix was designed and is presented in Figure 3.2.

	Has men's health curriculum	Has no men's health curriculum
See need for men's health curriculum	A	B
See no need for men's health curriculum	C	D

Figure 3.2. Sampling matrix for Program Director interviews.

The plan was that the letters A-D would each represent one or two Program Directors. In reality, none of the programs had a male health curriculum and they all perceived a need for more training in male health. In the end, participants were selected based on the quality of their returned surveys. The quality and depth of information was of a very high standard and since no new information was obtained, it was determined that saturation had been reached after three interviews. The interviews were audio recorded.

3.2.3 Focus Groups.

It was felt that two different Focus Groups would help to even out the possible dynamics that can play a role in a Focus Group. It was also useful to have the opinions of both rural and urban family physicians. For this reason, one Focus Group consisted of four urban family physicians and the other one of four rural family physicians, one family medicine resident and one medical student. Both the Focus Groups were audio and video recorded.

3.2.4 Data management.

Data from the surveys were entered into SPSS (Statistical Product and Service Solutions) (version 19).[3] Frequencies were calculated and the data was further analyzed to determine relationships between variables using chi-square tables.

The Program Director interviews and the Focus Groups were transcribed by the researcher and imported into the NVivo (version 9) software.[4] NVivo is one of a few statistical software packages available to help with the analysis of qualitative data. Each interview and Focus Group was treated as an individual case. Analysis of the qualitative data was performed as described in Chapters 4 and 5.

3.3 Phase 2

Using the Triple C competency based curriculum of the College of Family Physicians of Canada as a framework, a curriculum for Male Health training in family medicine residency training programs in Canada was created. [5] The information obtained from Phase 1 was incorporated in the curriculum in various areas, mainly in the content of the topics and procedures, as well as in the various settings in which the training could take place.

The principles of curriculum design that dictate a structure that not only includes content, but also settings, student assessment and curriculum review, was followed. A draft version of the curriculum was circulated to the Research Advisory Committee for feedback and extensive revisions were made based on the feedback.

The curriculum is presented in Chapter 6.

3.4 Phase 3

To be realistic, and mainly due to time constraints, this curriculum was not to be implemented in a real training program or to undertake a pre-implementation/post-implementation evaluation. It was therefore decided to disseminate the proposed curriculum to a Panel of Experts to critically appraise. Members selected to be on the Panel were to reflect different areas of the profession (urologists and family physicians), different countries based on work in the field of male health (Australia, Canada, South Africa, UK, USA), as well as various other organizations (journals and population health groups). The details of the Expert Panel will be discussed in Chapter 7.

3.5 Conclusions

The use of a mixed methods approach was selected to minimize the effect of a smaller than usual sample size. Different emphasis was put on different aspects of the project as would be true in a sequential transformative design. (See Chapter 4.)

The next section (Section 3) will focus on an environmental scan that was performed with family medicine training programs in Canada to determine the current state of male health training in Canada. This section will also discuss the need for such training as determined by Program Directors and Family Physicians.

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SECTION 3

MALE HEALTH

TRAINING

IN

CANADA

4. EVALUATION OF CURRENT TRAINING IN MALE HEALTH IN FAMILY MEDICINE TRAINING PROGRAMS IN CANADA (Manuscript 2)

Are Canadian Family Physicians educated about Male Health? ³

Manuscript information

The environmental scan that was done to determine the current and past state of affairs of male health training in Canadian family medicine training programs was compiled and prepared as a stand-alone manuscript. This was undertaken by the student and is presented in the following article submitted to the Asian Journal of Pharmacy, Nursing and Medical Sciences on February 10, 2013. This journal is a peer-reviewed, open-access, online journal and the manuscript was accepted on March 11, 2013 with minor revisions. This article was published online on May 1, 2013.

The student was the principal author of the article and planned, created, reviewed and submitted the article. The co-authors were the co-supervisors of the student and represented the Research Advisory Committee of the student as per the Faculty-Student Agreement of the School of Graduate Studies and Research at the University of Saskatchewan. The entire Research Advisory Committee reviewed draft versions of the manuscript and provided feedback for possible changes.

Permission to insert the article in this dissertation was requested from the Asian Journal of Pharmacy, Nursing and Medical Sciences and the response is attached as Appendix D.

³ The full citation of this chapter is: Muller AJ, Ramsden VR, White G. Are Canadian family physicians educated about men's health? Asian Journal of Pharmacy, Nursing and Medical Sciences. 2013;1(1):1-6.

4.1 Introduction

During the course of a medical doctor's training, more time is spent on the teaching of medical issues related to women's health, compared to male health. The specialty field of Obstetrics and Gynecology is primarily responsible for teaching many of these issues.

The training of family medicine residents in Canada takes place in residency programs in the 17 schools of medicine across the country. These programs are a minimum of two years, and the curricula of these programs are mostly based on the Standards for Accreditation, set by the College of Family Physicians of Canada.[1] This publication is traditionally referred to as the document with the "should" and "must" statements. A relevant quote from these standards reads: "To provide effective care, residents must become knowledgeable about the special health care requirements specific to men and women."[1](p.16). Another relevant quote states that "Residents must be well acquainted with important physical and psychosocial aspects of male and women's health care, including occupational health, family planning, spousal abuse, sexual assault, and sexual abuse. Residents must become familiar with gender-based differences in the management of common health problems in men and women."[1](p.17)

With these clear expectations, it would be anticipated that all family medicine training programs would have a clearly defined set of goals and objectives for gender-specific care. However, this is not the existing reality and therefore led to the need for this research endeavor.

The content of a male health curriculum is of much debate. There is quite a big disconnect between what services health care providers think should be offered at a "men's health clinic" and what the patients expect. Patients of different ages also have different needs when it comes to their own health.[2-5] This dilemma of differential expectations has the potential to be resolved by conducting a needs assessment and/or survey of family medicine training programs in Canada.

4.2 Methods

A mixed-methodology approach was selected for this research project. Even though the philosophy of pragmatism (non-committal, freedom of choice) is often associated with a mixed-methodology approach, social constructivism would be a better worldview for this research. Social constructivists believe that individuals seek to understand the world in which they live and work.[6] Learning is therefore achieved more effectively through interaction with others. This worldview is usually associated with qualitative research predominantly and thus the greater emphasis on the qualitative portion of the study.

The University of Saskatchewan's Behavioural Research Ethic's Board reviewed this project and a Certificate of Approval was received. (See Appendix F.)

A sequential transformative strategy, a form of a mixed-methods design, was used for this study. The first section was quantitative and the second section, which built on the data that were obtained in the first section, was qualitative. (Figure 4.1)

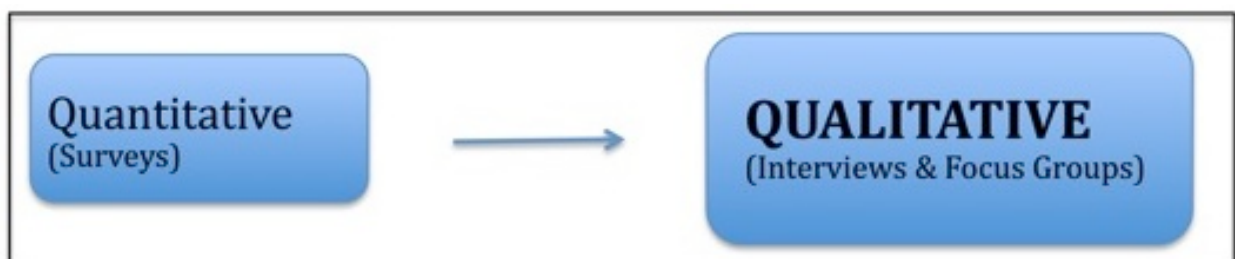


Figure 4.1. Sequential transformative design

For the quantitative section, a questionnaire was sent to all the Program Directors or Site Directors of family medicine residency training programs in Canada. The names of these individuals were obtained from the College of Family Physicians of Canada's website:

www.cfpc.ca. At the time of the study, there were seventeen programs in total in Canada. The questionnaire was circulated as a fillable .pdf document that could be completed and returned to the researcher. The survey collected information about the program (e.g. size, location of different sites, number of residents), as well as, on the presence or absence of a women's and/or male health rotation and their respective goals and objectives. Participants were also asked if there was a curriculum for women's and male health that was followed during their formal academic teaching rounds or lectures.

Many elements of the questionnaire focussed on different topics that might be considered relevant to male health and whether the participants felt that it was important to include in a male health curriculum. Participants were also asked to add any topics that they felt should be included in such a curriculum. Data were analysed using SPSS version 19 software. Frequencies were calculated and relationships between variables were determined using chi-square tables.

A case-based approach was used for the qualitative portion of the research. Case studies lend themselves well to the identifying themes.[6] Semi-structured interviews were arranged with selected participants who completed the survey. In a true sequential fashion, the questions used in the interviews were based on some of the information obtained from the questionnaires. The initial plan was to invite participants that had a male health curriculum, as well as some that did not. However, none of the participants indicated that they had a male health rotation or curriculum. Participants were therefore selected based on availability, as well as the quality of information received from the surveys. Saturation of information was felt to have occurred after only three interviews as no new information was obtained.

Two Focus Groups were convened and the topic of male health issues in family medicine practice was discussed. The first Focus Group consisted of four family physicians practicing in a

single *urban* clinic. This group had a mix of both Canadian trained and internationally trained family physicians. Most members of the group had graduated within the last 20 years. The second Focus Group consisted of family physicians in a single *rural* clinic. These physicians were all Canadian trained, but the time since they graduated ranged from one medical student, one resident, two recently graduated physicians and two physicians who had many years of experience. It was felt important to have both rural and urban family physicians in the Focus Groups as often the scope of practice differs in these two settings.

The emphasis of the discussion in the Focus Groups was on the following: previous training in male health, the need for training in male health during family medicine residency, as well as, different topics that should be included in such a training curriculum. The discussions within the Focus Groups were recorded with both audio and video recording equipment and later transcribed. (Videotaping was used only to identify different speakers during transcription.)

Analytical analysis of the data obtained from the quantitative survey was performed. The interviews were transcribed and imported into the NVivo (version 9) software. Each interview and Focus Group was treated as an individual case.

Through a deductive process, certain themes were identified. These predetermined themes were registered as “nodes” in the NVivo software and used while analysing the qualitative data. Further themes (or nodes) evolved through an inductive process as the transcriptions were analysed. Phrases in the text of the interviews were then linked to the different nodes and were used as examples to illustrate the different themes that evolved.

The author was involved in all aspects of this project, including conducting the interviews, facilitating the Focus Groups, as well as transcribing the interviews and analyzing the data.

4.3 Findings

For the purpose of this paper, the focus will be on the data that were obtained in relationship to what is currently being taught related to male health. A total of eleven questionnaires, representing 10 (59%) of the 17 family medicine residency training programs in Canada, were completed and returned. In one case, two different sites in the same program returned a survey. Three of the Program Directors forwarded the survey to other people in their program, such as Curriculum Coordinators or Deputy Program Directors. All the questionnaires were included in the analysis of the data except in the one instance where the two questionnaires from the same program were treated as one. The data are summarized in Table 4.1. In the role description, “other” was identified as mostly curriculum planners or leaders. Of the ten programs, six stated that they have a dedicated women’s health rotation with goals and objectives, whereas all of the programs stated that they did not have a male health rotation or any goals and objectives for such a rotation. One of the programs did mention that it followed a horizontal curriculum. (A horizontal program traditionally has no rotations.)

Seven of the programs have objectives for women’s health in their academic teaching sessions and five of them mention that they have objectives for male health problems for these same sessions.

Table 4.1. Survey data from Program Directors in Canada

	(n)	(%)
Role		
Program Director	5	45.5
Site Director	3	27.3
Other	3	27.3
Women's Health Rotation		
Yes	5	45.5
No	6	54.5
Women's Health Rotation Objectives		
Yes	6	54.5
Does not apply	5	45.5
Women's Health Curriculum Objectives		
Yes	7	63.6
No	3	27.3
Men's Health Rotation		
Yes	0	0
No	10	100
Men's Health Rotation Objectives		
Yes	0	0
No	1	9.1
Does not apply	4	36.4
Men's Health Curriculum Objectives		
Yes	5	45.5
No	5	45.5
Where do residents get most of their male health training?		
Urology	0	0
Women's Health Rotation	0	0
Other	10	90.9

Six different themes were identified in the end: current male health teaching in programs, previous male health training, need for a curriculum, different mental and physical disease topics, gender differences and procedures related to male health.

It was evident from the interviews and the Focus Groups, that if it happened at all, a lot of male health teaching was sporadic and unorganized throughout a physician's training. One respondent commented that

“.....what I recall besides some very cursory lectures on prostate and BPH and prostate cancer screening and not even so much on the treatment of prostate cancer, was about all we received about men's health.” – recent graduate.

Another recent graduate commented that

“I was lucky enough to be with a preceptor – he had an interest in men's health – so that's how I got some exposure to things like that.”

Participants felt that most of the time they were responsible for initiating discussions and teaching around male health:

“We had pretty much just a men's health academic half day and that was initiated by us residents.”

Participants felt that they were not prepared for what was expected of them in practice:

“We receive, I mean, extremely poor training in our undergraduate and received excellent training after graduation when you were just dumped in the swimming pool.” – International Medical Graduate (IMG).

These participants were not exaggerating or misled because the Program Directors admitted that they do not have dedicated male health rotations or a set of goals and objectives for male health in their programs:

“I'm not aware of specific curriculum goals that are unique to men's health.” – Program Director

And yet another:

“As far as the specific time in the program, no I think that the residents are getting exposure to some experiences that might include men's health but they're certainly not dedicated towards men's health”.

4.4 Discussion

It was clear from all aspects of the study that there was very little emphasis on male health in the curriculum of family medicine residency programs in Canada. This was alarming when it has been established that men die younger than women[7,8] and that most family physicians in Canada do not feel competent to deal with most problems that are unique to men. The expectations from the College of Family Physicians of Canada's Standards for Accreditation requires residents to become knowledgeable about the special health care requirements specific to men and women.[1] This study has shown that programs have ensured that residents become skilled in women's health but not male health. This study also identified that practicing physicians acknowledged their lack of training in male health. Most physicians have to rely on their own thirst for knowledge and hope that they will have the appropriate guidance to meet their needs. The real danger often lies in the fact that they don't know what they don't know until they are faced with a situation that requires them to have knowledge and skills in a certain area. People might argue that the issues of male health are often not life threatening and that the physician can read up around the topic as the need arise. However this does not instill a lot of confidence in a male patient who was already hesitant to make contact with a health professional.[9,10]

4.5 Conclusion

Based on the information gathered through this study, there is clearly a need for a formalized curriculum in male health to be included in the family medicine residency training programs in

Canada. This curriculum would have to be competency-based to fit well with the new Triple-C curriculum of the College of Family Physicians of Canada (CFPC).[11] Even though some participants mentioned a “men’s health rotation” as a venue to obtain the necessary skills, the CFPC has elected to move away from rotation-based training. The competencies that will be expected from residents in the area of male health will have to be achieved in a longitudinal family medicine experience and will most likely rely on directed self-learning from the resident’s perspective.[12, p.146]

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5. BRIDGING THE GAP IN MALE HEALTH TRAINING FOR FAMILY PHYSICIANS IN CANADA. (Manuscript 3)

Is There a Need for Male Health Training for Family Physicians in Canada?⁴

Manuscript information

After a literature review and a subsequent Environmental Scan of male health training in Canadian family medicine training programs, it was determined that a needs assessment regarding male health training for family physicians was required. This was undertaken and is presented in the following article submitted to the ISRN (International Scholarly Research Network) Family Medicine on December 17, 2012. This journal is a peer-reviewed, open-access, online journal and the manuscript was accepted on February 13, 2013 with minor revisions following the first review. The suggested revisions were clarification of some of the statements that were made in the article. The article was published online on March 21, 2013.

The student was the principal author of the article and planned, created and submitted the article. The co-authors were the co-supervisors of the student and represented the Research Advisory Committee of the student as per the Faculty-Student Agreement of the School of Graduate Studies and Research at the University of Saskatchewan. The entire Research Advisory Committee reviewed draft versions of the manuscript and provided feedback for possible changes.

Permission to insert the article in this dissertation was received from the ISRN and is attached as Appendix E.

⁴ The full citation of this chapter is: Muller AJ, Ramsden VR, White G. Is there a need for men's health training for family physicians in Canada? ISRN Family Medicine. 2013; Article ID931265.

Abstract

Objective: The goal of this study was to explore which topics were rendered important to incorporate into a male health curriculum in family medicine resident training.

Design: Mixed-methods were used. A quantitative survey was sent to Program Directors of Canadian family medicine residency training programs. This was followed by a qualitative phase with interviews of selected Program Directors and two Focus Groups with practicing family physicians in a rural and an urban clinic.

Setting: The study took place in Canada with the Focus Groups comprised of physicians in the province of Saskatchewan.

Participants: Program Directors of all 17 family medicine training programs in Canada were surveyed. One Focus Group consisted of family physicians in urban practice and the other group consisted of family physicians in a rural setting.

Method: A case study method with a sequential transformative strategy was utilized. Quantitative data were analyzed for frequencies and relationships between variables were determined using chi-squares. The qualitative data were thematically analyzed using a deductive process.

Main Findings: Certain issues were identified for incorporating into a male health curriculum for family medicine resident training. These issues were grouped in three groups: male sexual and reproductive health, general topics and procedures specific to male health.

Conclusion: It appeared that there was no formal curriculum to address any of these issues in any of the current family medicine training programs in Canada. Based on the information gathered from participants in this study, there was a great need for such a curriculum.

Keywords: Male Health, education, Curriculum, Family Physician

5.1 Introduction

The Men in Australia Telephone Survey (MATeS) was conducted in 2003 and is still the only whole-of-nation, population-based study focusing on the reproductive health and other issues of middle-aged and older Australian men.[1] Two of the main outcomes of this survey were: the fact that a significant number of men were affected by reproductive health disorders (e.g. one in three men over the age of 40 years suffered from erectile dysfunction), and that men are indeed interested and concerned about their health. Almost 90% of the men in this study over the age of 40 years had consulted their physicians in the previous 12 months.

A study by White and Holmes showed that men die earlier than women and they revealed this to be true in all 44 countries in their sample.[2] It is therefore important that family physicians possess the necessary skills in dealing with the health care needs of their male patients. But what are these skills that are expected of a family physician in order to be “competent” in caring for male patients? This study sets out to answer this question.

The goal of this study was to explore the various issues that Program Directors of family medicine training programs and practicing family physicians express as important and therefore should be included in a male health curriculum for family medicine residency training programs.

5.2 Methods

A mixed-methodology design was used, specifically a sequential transformative design.[3] In this form of research design, which has two distinct data collection phases, one follows the other and builds on the earlier phase. A mixed methods study design was chosen because it was anticipated that a relatively low number of participants would be recruited for the various components of the study. This study design also compensates for the fact that early saturation

might (and in fact it did) occur in the interview section. A Certificate of Approval was received from University of Saskatchewan's Behavioural Research Ethics Board prior to starting this research endeavour.

In this study, a quantitative survey was sent electronically to all Program Directors and Site Directors of the seventeen family medicine residency training-programs in Canada. This was followed by a qualitative phase where interviews were arranged with some of the Program Directors and Site Directors. A matrix was created to purposefully select participants that have a male health curriculum as well as some that did not. However none of the participants stated that they had a male health rotation or curriculum. Participants were therefore selected based on availability and the quality of information received on the surveys. Saturation of information was determined to have occurred after only three interviews as no new information was obtained. Two Focus Groups were also conducted. One group consisted of four urban family physicians and the other of four rural family physicians, one resident and one medical student. The plan did not include having a resident and medical student in the rural Focus Group, but they were working with the physicians at the time of the interview and believed that it would be a good experience for them. It turned out that they were also a valuable source of information for the researcher, and therefore their comments were included in the analysis.

Many elements of the questionnaire focussed on different topics that might be considered relevant to male health and whether the participants believed that it was important to include in a male health curriculum. The topics were chosen based on an extensive literature review. The participants were asked to select from each group all the topics they considered important to have in a male health curriculum.

The topics were grouped as follows:

1. Male sexual and reproductive health. (e.g. prostate cancer, erectile dysfunction.)
2. General health relevant to men. (e.g. cardiovascular disease in men, alcoholism.)
3. Procedures specific to male health. (e.g. vasectomies, circumcisions.)

Participants were then asked to rank their top ten choices in the first group and their top five choices in the other two groups. The difference in ranking items was due to the difference in the number of items on each of the lists. Points were allocated for their ranked lists, for example if a topic was ranked first, it was scored 10 points in a rank list of ten, second was scored 9, and so on. Means, medians and modes were calculated for all the responses. The topics were initially sorted in order of importance by using the mean scores and secondly by the median scores. At the end of the survey, participants were invited to add any topic(s) they believed should be included in a male health curriculum for family medicine residency training programs.

A case-based approach was used for the qualitative portion of the research. Cases can come in a variety of forms. In this study, individual cases (interviews with Program Directors), as well as group cases (Focus Groups) were used.[4] The responses from the quantitative questionnaire formed the basis of the semi-structured interviews that were conducted with selected Program Directors. Some aspects of the questionnaire were used to prompt discussion in the Focus Groups.

The discussions within the Focus Groups were recorded with both audio and video recording equipment and later transcribed. (Videotaping was used only to identify different speakers during transcription.) Interviews with Program Directors were only voice recorded.

The interviews and Focus Groups were transcribed by the author and imported into the NVivo (Version 9) software.[5] Each interview and Focus Group was treated as an individual case.

Using deductive analysis, certain themes were identified from the questionnaire data. This implied that general statements were synthesised into more specific statements. Some of the specific statements were also grouped in “themes” that belonged together. These predetermined themes were registered as “nodes” in the NVivo software and were used while analysing the qualitative data. Further themes (or nodes) evolved as the transcriptions were analysed.

Although both the qualitative and quantitative aspects of the study had questions about past and current training in male health, this paper focuses on what participants thought the content of a male health curriculum for family medicine residency training should contain.

The author was involved in all aspects of this project, including: conducting the interviews; facilitating the Focus Groups; transcribing the interviews and analyzing the data.

5.3 Findings

5.3.1 Quantitative data

A total of eleven questionnaires, that represented 10 (59%) of the 17 family medicine residency training programs in Canada, were completed and returned. In one case, two different sites in the same program returned a survey. Even though the number of responses might appear low, it is still considered above expected when taking into consideration the overwhelming number of surveys that end up on Program Directors’ desks. The rank list of problems identified from group one (sexual and reproductive health) is represented in Table 5.1. Table 5.2 represents the rank list for topics related to general health and Table 5.3 presents the rank list for procedures. No new topics were added by any of the participants in the quantitative section of the study.

Table 5.1. List of male sexual and reproductive health topics identified by Program Directors in order of importance.

RANK	TOPIC	MEAN	MEDIAN
1	BPH	9.09	9
2	Prostate Cancer	8.64	10
3	Erectile Dysfunction	7.64	8
4	STI's	5.55	6
5	Prostatitis (Acute)	3.36	5
6	Testicular Cancer	3.27	3
7	Epididymitis	2.36	2
8	Andropause	1.94	0
9	Prostatitis (Chronic)	1.82	2
10	Testicular Torsion	1.82	0
11	Contraception for Men	1.82	0
12	UTI in Men	1.45	0
13	Undescended Testes	1.36	0
14	Hydrocele	0.73	0
15	Phimosis	0.27	0
16	Varicocoele	0.27	0
17	Balanitis	0.27	0
18	Male Infertility	0.18	0
19	Premature Ejaculation	0.09	0
20	Gynecomastia	0.09	0
21	Peyronie's Disease	0	0
22	Penile Cancer	0	0
23	Paraphimosis	0	0
24	Other Sexual Dysfunction	0	0
25	Priapism	0	0
26	Genital Trauma	0	0
27	Klinefelter Disease	0	0

Table 5.2. List of topics related to general health identified by Program Directors in order of importance

RANK	TOPIC	MEAN	MEDIAN
1	Alcoholism	3.00	3
2	Abuse	3.00	2
3	Psychiatry	2.82	3
4	Eyes and ENT	2.73	0
5	Cardiovascular	2.27	1
6	Pharmacology	2.09	0
7	Respiratory	1.82	0
8	Musculo-skeletal	1.55	0
9	Skin	1.45	0
10	Gastro-intestinal	1.00	0
11	Neurological	0.36	0

Table 5.3. List of procedures identified by Program Directors in order of importance

RANK	TOPIC	MEAN	MEDIAN
1	Newborn Circumcision	1.36	1
2	Reduce Paraphimosis	1.36	0
3	Vasectomy	1.18	0
4	Drain Hydrocele	1.00	0
5	Bladder Catheterization	0.91	1
6	Intra-cavernosal Injections	0.82	0
7	Adult Circumcision	0	0
8	Prostate Biopsy	0	0

5.3.2 Qualitative data

“Men are considered to be rather uncomplicated, you know. They die early but no one seems to care.” – Program Director.

Theme 1. Need for Male Health Curriculum.

Following are some of the quotes from Program Directors and practicing physicians regarding a male health curriculum in Family Medicine Residency Training Programs:

“We have women’s health. There should be something in men’s health – it just makes common sense.” – Focus Group participant.

“Everybody thinks it [men’s health] equals erectile dysfunction..... it’s way broader...” – Focus Group participant.

Theme 2. Topics to Include in a Male Health Curriculum.

The participants were asked to think of different topics that they would like to see in a male health curriculum. Most of the topics listed in the quantitative questionnaire were mentioned again in the interviews and Focus Groups. Some of the other topics that were discussed are mentioned in the following quotes:

“Screening guidelines for different age groups.” - Focus Group participant.

“Issues around men who have sex with men....” - Focus Group participant.

“Talk about the Gardasil® vaccine..” - Focus Group participant.

“I think mental health issues for men are really lacking.” - Focus Group participant.

Mental health issues came up in several of the interviews and Focus Groups. Even though “Psychiatry” was one of the topics in the quantitative survey, the participants in the Focus Groups and interviews wanted suicide to be singled out as an important topic in men:

“Single elderly male has much higher rate of suicide.” - Focus Group participant

Some physical conditions were also mentioned:

“Development of osteoporosis in men.” – Focus Group participant.

“Semen analysis interpretation.. male infertility.” - Focus Group participant.

Even though the Program Directors did not rank it very high, participants in the Focus Groups reported that they would have liked to be more competent in dealing with priapism and Peyronie's Disease.

When it came to procedures, no new procedures were mentioned that had not already been covered in the survey responses from the Program Directors. Two of the participants in the Focus Groups did however classify digital rectal exams as a "procedure" and would have liked more and better formal training in performing this correctly.

Theme 3. Structure of a Male Health Curriculum.

The Focus Groups were asked how they would have preferred to learn about male health issues as a student or resident. The idea of a male health clinic, preferably in an academic setting, was discussed and received favorably by other participants of the urban Focus Group:

"....involve men of all over the city to come in as patients.....and so do a rotation in such a clinic. I think it's a great idea" – Focus Group participant.

5.4 Discussion

The majority of the top ten topics listed in Table 5.1 did not come as a huge surprise. These were topics that most family physicians deal with on a daily basis. The only topic that ranked higher than expected was that of Andropause, or, as it is now known, late onset hypogonadism (LOH).[6] This could be due to the fact that several new testosterone replacement products became available in Canada in the last few years and some media attention has been directed that way. Family physicians might therefore feel some pressure about becoming competent regarding this issue.

Even though some conditions in Table 5.1 were not ranked at all by Program Directors, it does not mean that they were not important. In hindsight, it might have been interesting to have

given the same lists to members of the Focus Groups to complete and see how (if at all) it differs from the ranking of the Program Directors.

With the rank list of topics related to general in Table 5.2, it was interesting to note how high non-physical issues were ranked. One would expect that cardiovascular disease in men would be high on the list since it remains one of the highest causes of mortality in men (second only to cancer).[7] Instead, mental health or psychiatric conditions such as abuse, alcoholism and general psychiatry were prominent.

The list of procedures that were ranked in Table 5.3 held no surprises. The majority of these procedures form part of the core Procedure List used in most family medicine residency training programs in Canada.[8] These are procedures that family medicine residents expect to be taught and that the general public expect that family physicians will be able to perform.

Topics that were identified and discussed in the interviews and Focus Groups reflect the variety of issues that family physicians deal with on a regular basis. It was also clear that the participants (mostly practicing physicians) did not feel comfortable dealing with issues related to male health. Many of the participants told stories about how they learned many of these skills after being in practice for a while. If family physicians can become competent in these skills before they start their practice, this could cut down on many unnecessary and costly referrals to specialists.

The topics identified as important to incorporate into a male health curriculum, compares well to curricula developed in the UK, Australia and the State of Hawaii.[9-11]. If one focuses on male-specific issues, the American Academy of Family Physicians also identified male baldness as a unique and separate topic in their curriculum.[12] The College of Family Physicians of Canada has goals and objectives for general care of the adult in their standards for

accreditation.[13] It is however essential to separate the unique issues related to male health into a separate curriculum (as is the case with women's health) in order for it to receive the importance it warrants.

5.5 Limitations

This study was undertaken within a Canadian context and can therefore not necessarily be extrapolated to other countries. The sample size in each of the different components were quite low due to the small number of possible participants. This has been addressed in the Section entitled Methods and Materials. Some of the surveys contained the minimum required answers and did not contain any additional ideas. It would have been helpful if participants could have added comments that were not part of the questionnaires. The fact that the principal author was the only person conducting the interviews and analyzing the data could be seen as a limitation. This was unfortunately an expectation as this study was undertaken in partial fulfillment of a PhD Program.

5.6 Conclusion

Participants in both the quantitative and qualitative aspects of the study provided lists of male health issues that could and should be seen as competencies that family medicine residents attain during their training. It appeared that there was no formal curriculum to address any of these issues in any of the current family medicine residency training programs in Canada. Based on the information gathered from participants in this study, a common theme emerged in that there was a great need for such a curriculum. This curriculum has to comply and mesh with the Triple C curriculum as proposed by the College of Family Physicians of Canada. [14]

This concludes the information in Section 3. Now that it was clear that there was both a real and a perceived need for a male health curriculum in family medicine training, the next section (Section 4) will set out to develop such a curriculum as well as highlight the feedback that was received from an Expert Panel after reviewing and considering the proposed curriculum.

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SECTION 4

CURRICULUM

6. PROPOSED MALE HEALTH CURRICULUM FOR FAMILY MEDICINE RESIDENCY TRAINING.

6.1 Introduction

There are some problems that face adult patients that are unique to the male sex. The College of Family Physicians of Canada (CFPC) Accreditation Standards (Red Book)[1] refers to the care of adults, children and adolescents when describing a proposed curriculum for the training for family medicine residents. The Red Book says that “*residents must provide care to patients at every stage of life, from birth to death. This includes care of children and adults, men and women, the elderly, and palliation and end-of-life care.*”(p18) The Red Book also describes some specific areas in women’s health that should be covered (maternity care – page 19) but fails to specify anything further on male health.

An extensive literature review was undertaken to explore the existence of male health curricula in family medicine training programs in Canada and the rest of the English-speaking Western world. Based on this literature review, a survey was sent to the Program Directors of the 17 family medicine residency training programs in Canada. Part of the survey focused on possible content items for a proposed curriculum in male health in family medicine training. This was followed by interviews with some of the Program Directors of these training programs as well as facilitation of two Focus Groups consisting mostly of family physicians. The goal of the interviews and Focus Groups was, amongst other things, to explore different topics for the proposed male health curriculum. All the information obtained through these different aspects of the study was used to help design the curriculum being proposed here.

This proposed curriculum addresses the deficiencies in male health training and is relevant to a family medicine training program in Canada.

6.2 Preamble

The College of Family Physicians of Canada (CFPC) has recently released a document describing the Triple C Curriculum in family medicine.[2] This curriculum provides the recommended structure that all family medicine training programs in Canada must follow and that will be used to evaluate and approve future accreditation of training programs. Triple C is a competency-based curriculum in family medicine that is Comprehensive, focused on Continuity and Centered in family medicine. The information in this document, combined with information obtained from the evaluation objectives in Family Medicine [3] and the information gathered as mentioned in the introduction were used in creating this proposed curriculum structure. The traditional requisites and theory of curriculum design were still followed and in this regard the book by Professor Ronald Harden; “*Essential skills for a medical teacher: An introduction to teaching and learning in medicine*” was found to be very helpful.[4] Another useful resource was a publication from the John Hopkins University Press by Kern et al; “*Curriculum development for medical education: A six-step approach*”.[5]

The structure of the curriculum is based on the CanMEDS-FM framework, as described in the Triple-C curriculum document.[2] The Key competencies are reproduced from the Triple-C Competency based Curriculum document. [2] Key competencies are to be acquired by the residents in the program. Examples of scenarios in a male health curriculum were added in *italics*. Family Medicine topics and procedures related to male health are discussed under the first CanMED role, The Family Medicine Expert.

6.3 Goals and objectives

The CanMEDS-FM framework forms the basic goals of this curriculum. [2] This framework consists of seven roles in which family physicians are expected to be competent. These roles are:

1. The Family Medicine Expert
2. Communicator
3. Collaborator
4. Manager
5. Health Advocate
6. Scholar
7. Professional

These goals are discussed in more details in the following section. Within the different roles are key competencies expected of competent family physicians. The specific objectives for specific disease entities and procedures related to male health are mentioned under the role of the family medicine expert. [2]

6.3.1 The Family Medicine Expert.

Key Competencies: (Family Physicians are able to.....)

1. Integrate all the CanMEDS-FM roles as mentioned above in order to function effectively as generalists.
2. Establish and maintain clinical knowledge, skills and attitudes required to meet the needs of the practice and patient populations served. (*Demonstrates knowledge of the most up to date evidence based information on the topics listed in Table 6.1.*)
3. Demonstrate proficient assessment and management of patients using the patient-centered method. (*Demonstrates an appropriate approach to male patients.*)

4. Provide comprehensive and continuing care throughout the life cycle incorporating appropriate preventive, diagnostic and therapeutic interventions. (*Demonstrates knowledge of the screening guidelines related to the topics listed in Table 6.1.*)
5. Attend to complex clinical situations in family medicine effectively. (*See Table 6.1.*)
6. Demonstrate proficient and evidence-based use of procedural skills. (*See list of procedures listed in Table 6.2.*)
7. Provide coordination of patient care including collaboration and consultation with other health professionals and caregivers. (*Refer men to the appropriate specialists as needed.*)

The resident must show competence in dealing with the content of the curriculum in male health. Table 6.1 outlines the specific topics that form the content of this curriculum.

Table 6.1. List of topics that form the content of the curriculum in male health in family medicine training.

Prostate	
	Benign Prostatic Hyperplasia (BPH)
	Prostate cancer
	Prostatitis (Acute and Chronic)
Penis	
	Balanitis
	Erectile dysfunction
	Penile cancer
	Peyronie's disease
	Phimosis and paraphimosis
	Priapism
Scrotal contents	
	Epididymitis
	Hydrocele
	Testicular cancer
	Testicular torsion
	Undescended testis
	Varicocoele
General	
	Abuse (physical, emotional and sexual)
	Alcoholism
	Contraception for men
	Gynecomastia
	Issues specific to men who have sex with men (MSM)
	Male infertility
	Mental health concerns: depression, anxiety, suicide.
	Osteoporosis in men
	Premature ejaculation
	Sexually Transmitted Infections (STI's) in men
	Testosterone deficiency syndromes
	Urinary tract Infections (UTI) in men

A list of objectives can be designed for each of the topics utilizing the most up-to-date evidence and guidelines for the specific topics. The general themes for these objectives were based on the phases of the clinical encounter:[3]

- Hypothesis generation (preliminary differential diagnosis)

- History (gather the appropriate information)
- Physical examination (gather the appropriate information)
- Investigation (gather the appropriate information)
- Diagnosis, including problem identification (interpret information)
- Treatment (or management)
- Follow-up
- Referral

These phases of the clinical encounter were then used to create the specific objectives for the disease entities listed in Table 6.1. This will be illustrated by using the first disease entity, benign prostatic hyperplasia (BPH), as an example. (See Figure 6.1.)

At the end of the family medicine residency program, and in a man who presents with symptoms and signs consistent with Benign Prostatic Hyperplasia (BPH), the resident will:

- Be able to list the different diagnoses that need to form part of a preliminary differential diagnosis.
- Use a patient-centered approach in obtaining a thorough history of the presenting problem as well as a relevant review of systems.
- Skillfully perform a physical examination, including a digital rectal examination, in order to obtain the necessary information.
- Selectively order appropriate further investigations, e.g. blood tests, imaging and urine analysis.
- Interpret all the information gathered in order to come to a definite diagnosis.
- Select the appropriate management option(s) for each individual patient.
- Arrange for follow-up care in order to ensure continuity of care.
- Refer the patient for specialist care if appropriate.

Figure 6.1. Example of objectives created for benign prostatic hyperplasia.

Apart from knowing the indications, contra-indications and possible complications, the resident must be able to demonstrate appropriate technical skills in performing core procedures as outlined in Table 6.2. Detailed objectives can again be created for each procedure, based on the most current guidelines for that particular procedure. Table 6.2 also outlines enhanced skill procedures that are optional for the resident to learn.

Table 6.2. List of procedures typically performed on men that form part of the content of the curriculum in male health in family medicine training

Core procedures	
	Bladder catheterization
	Digital rectal examination (DRE)
	Drain hydrocele
	Reduce paraphimosis
	Testicular examination
Enhanced procedures	
	Intra-cavernosal injection
	Newborn circumcision
	Vasectomy

6.3.2 Communicator

Key Competencies: (Family physicians use the patient-centered clinical method and)

1. Develop rapport, trust and ethical therapeutic relationships with patients and families.
(*Effective and sensitive communication with men who are traditionally not keen on seeking medical help.*)
2. Accurately elicit and synthesize information from, and perspective of, patients and families, colleagues and other professionals.
3. Accurately convey needed information and explanations to patients and families, colleagues and other professionals.
4. Develop a common understanding on issues, problems and plans with patients and families, colleagues and other professionals to develop, provide and follow-up on a shared plan of care.
5. Convey effective oral and written information.

6.3.3 Collaborator

Key Competencies: (Family physicians are able to

1. Participate in a collaborative team-based model and with consulting health professionals in the care of patients. (*Shared care with specialists such as urologists or psychiatrists with certain conditions such as prostate cancer and depression in men.*)
2. Maintain a positive working environment with consulting health professionals, health care team members, and community agencies.
3. Engage patients or specific groups of patients and their families as active participants in their health care. (*Involving men of different ages in screening for appropriate conditions e.g. teenagers and testicular cancer, and older men and prostate cancer.*)

6.3.4 Manager

Key Competencies: (Family physicians are able to)

1. Participate in activities that contribute to the effectiveness of their own practice, healthcare organizations and systems.
2. Manage their practice and career effectively.
3. Allocate finite healthcare resources appropriately. (*Manage conditions appropriately and only refer to specialists when needed.*)
4. Serve in administration and leadership roles, as appropriate.

6.3.5 Health advocate

Key Competencies: (Family physicians are able to)

1. Respond to individual patient health needs and issues as part of patient care.
2. Respond to the health needs of the community that they serve. (*Advocate for the health of their male patients.*)
3. Identify the determinants of health within their communities.

4. Promote the health of individual patients, communities and populations. (*In this case – all men of all ages.*)

6.3.6 Scholar

Key Competencies: (Family physicians are able to)

1. Maintain and enhance professional activities through ongoing self-directed learning based on reflective practice. (*Keep up to date in the field of male health.*)
2. Critically evaluate medical information, its resources and its relevance to their practice and apply this information to practice decisions.
3. Facilitate the education of patients, families, trainees, other health professional colleagues and the public.
4. Contribute to the creation, dissemination, application and translation of new knowledge and practices. (*Participate and initiate research initiatives involving male health, quality assurance strategies, etc.*)

6.3.7 Professional

Key Competencies: (Family physicians are able to)

1. Demonstrate a commitment to their patients, profession, and society through ethical practice.
2. Demonstrate a commitment to patients, the profession-, and society through participation in profession-led regulations.
3. Demonstrate a commitment to physician health and sustainable practice.
4. Demonstrate a commitment to reflective practice.

6.4 Setting

6.4.1 Rotation

Even though the trend in family medicine training in Canada is to eliminate rotation-based training as much as possible, the features of such a setting will still be described. This setting might be applicable for learners who decide to complete an elective in male health to enhance their learning.

Some training programs might have access to a male health clinic. This type of clinic might be ideal for exposure to male-specific problems such as infertility, sexual dysfunction, sexually transmitted infections and mental health. Clinics such as these often have a multi-disciplinary approach and learners would get exposure not only to the disease process but also to an inter-disciplinary approach to the delivery of health care.

Another rotation that would ensure that the learner is exposed to male-specific health would be that of urology. The experience in male health education might be diluted, as urologists do not only deal with problems in men but also in women. The learner would however be guaranteed that a number of male health topics would be covered during a rotation of an appropriate length of time to become competent in these skills.

6.4.2 Family Medicine Clinic

It is anticipated that the majority of topics in a male health curriculum for family medicine will be covered while working in a family medicine clinic-setting. The resident should ensure that he or she is dealing with a proportionate number of male and female patients of different ages. As men are known not to seek medical help as often as females,[6,7] it is common to have a slightly higher number of female patients. Opportunities should therefore be created to initiate a discussion with male patients around their specific health needs.

6.4.3 Simulation

Wherever available, simulation models (or even simulated patients) should be used to obtain and practice skills that are not available from dealing with regular patients.[4,8] Examples of these might be a pelvic model to practice performing a digital rectal examination or scrotal examination.

6.4.4 Formal teaching.

Some aspects of the curriculum lend itself to more formal teaching. This could be in the form of workshops, problem-based small group discussions and the rare didactic lecture. Topics that are hard to cover in a clinical setting should be selected for this type of teaching.

6.4.5 E-learning / Directed self-learning.

As is the case in any other field of study, not all aspects of a field will be covered in a clinical setting. The responsibility is therefore on the learner to avail himself/herself of numerous electronic learning opportunities, to fill the gap in their educational experience. The competencies and expected outcomes of the curriculum should direct the learner in identifying the gaps and finding resources to fill the gaps.

6.5 Assessment

Several forms of assessment exist. The first distinction is between formative and summative assessment.[5] In the former, feedback is given to the student about his or her performance and in the latter a decision is made whether a student has achieved the desired outcomes of the curriculum. Assessment can take the form of written examinations, oral examinations, Objective Structured Clinical Examinations (OSCE's), direct observations and reflective exercises.

As this curriculum in male health is seen as a ‘sub curriculum’ of “care of the adult”, a portfolio assessment is recommended. A portfolio is a collection of evidence that learning has taken place.[4,8] Different evaluation tools can form part of a portfolio. Field notes [9, 10], reflection essays and procedure logs are key tools that are recommended for forming part of a male health portfolio.

6.5.1 Field notes. [9, 10]

Preceptors predominantly, but not exclusively, complete field notes. [9, 10] Peers, support staff and patients can also complete them. Field notes are one-page feedback sheets that focus on a single patient encounter, whether it was counseling, physical examination, a procedure or any other form of patient contact. This feedback is to be based on either an in-person interaction or a video recorded interaction. In fact, all of the CanMEDS-FM roles can be evaluated in this way. A grade of satisfactory or unsatisfactory is to be given on the observed item.

Field notes can be paper based or electronically entered. Learners have the responsibility to collect as many field notes as possible on a variety of skills and competencies. This way they can show compliance with achieving the different outcomes expected of the curriculum. Field notes showing “satisfactory” must be obtained in all of the core topics as identified in the structure of the curriculum. (See Figure 6.2 Example family medicine field note.)

Family Medicine Field Note			
Name: _____		Date: _____	
Evaluator: _____		Setting: _____	
Case description:			
General feedback:			
CanMeds-FM Role assessment:			
	Satisfactory	Unsatisfactory	Not applicable
Family Medicine Expert			
Communicator			
Collaborator			
Manager			
Health Advocate			
Scholar			
Professional			
Comments if unsatisfactory:			
Signature: _____			

Figure 6.2. Example of a family medicine field note.

6.5.2 Reflection essay.

Learners are required to write a reflective essay on their experience dealing with the health issues of men. Mention should be made of any identified gaps in achieving the competencies as outlined in the goals and objectives of the curriculum, as well as, how the learner filled these gaps with self-directed learning. The reflective essay is expected to follow the CanMEDS-FM roles. The Site Director for the training program grades the essay and a grade of either unsatisfactory or satisfactory is given for the assignment. If an unsatisfactory grade is obtained, the reflective essay must be repeated until a satisfactory grade is obtained.

6.5.3 Procedure logs.

The learner must maintain a procedure log of all procedures performed as described in Table 6.2. This log must indicate if the learner assisted in the procedure or performed it independently. The preceptor must indicate if an independently performed procedure was performed satisfactory or unsatisfactory. All core procedures must be performed satisfactorily. (See Figure 6.3. Example family medicine procedure log: male health) Field notes can also be used to give feedback to learners about procedures they have performed. These can be added to strengthen their portfolios.

Family Medicine Procedure Log: Men's Health					
Core procedures					
	Assisted	Independent	Satisfactory	Unsatisfactory	Not applicable
Digital Rectal Examination					
Testicular examination					
Reduce paraphimosis					
Bladder catheterization					
Drain Hydrocoele					
Enhanced Procedures					
	Assisted	Independent	Satisfactory	Unsatisfactory	Not applicable
Newborn circumcision					
Vasectomy					
Intra-cavernosal injections					
Comments:					

Figure 6.3. Example of family medicine procedure log: male health.

Beyond the program level, the learners will have a summative assessment during the CCFP's certification examination. This examination currently consists of a case-based written examination (SAMPS or Short Answer Management Problems) and a case-based oral examination (SOO or Simulated Office Oral). Traditionally, both components of the examination have been used to test a student's knowledge on male health issues.

6.6. Curriculum evaluation

A number of questions should be asked when a curriculum is being reviewed and evaluated. Harden proposes ten questions that should be asked.[4] For the purpose of this curriculum, the questions were modified and shortened as follows:

1. Are the learning outcomes of the curriculum achieved?
2. Is the curriculum content relevant and up to date?
3. Is the curriculum organization appropriate?
4. Are the educational strategies (settings) and opportunities appropriate and successful?
5. Is the assessment valid and reliable?

According to Kirkpatrick there are four levels for assessing effectiveness of training:[11]

a. Opinion / reaction

As part of “student-centered-education”, current and recent residents will be surveyed to ascertain their satisfaction with the curriculum. They will be asked if it met their needs and how it can be updated in the future.

b. Competence / learning

Student’s performance in certification examinations are evaluated and compared to the national performance. A breakdown of performances on male health-related questions could be obtained from the College of Family Physicians of Canada.

c. Performance / behavior transfer

Resident’s behavior during and at the end of their training program can be assessed to evaluate how they perform in their daily interaction with patients. The same evaluation tools as described under “assessment” can be used at the start and at the end of their training.

d. Outcome / results

The learners' performance in independent practice is assessed. This is difficult to measure but a 360 degree type of assessment procedure could be developed. [8] Surveys are sent to specialists, patients, supporting staff and other related health-care providers. The surveys assess different aspects of a practicing physician's care of male patients. The Practice Enhancement Program (PEP) in Saskatchewan would be a good example of such an evaluation.

<http://www.pepsask.ca>. [12]

6.7. Conclusions

An attempt was made to create a curriculum that focused on the competencies needed for a family physician to treat male patients in their practice. It is generally accepted that students will cover many of the topics over the span of their medical school undergraduate training, as well as during their family medicine residency training in an informal fashion. Many of the competencies will also be achieved after their formal training and as part of their ongoing continuing professional development. The goal of this curriculum was to focus the student; as well as, the training program on specific competencies that should be achieved to ensure a competent family physician.

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7. EXPERT PANEL'S REVIEW OF PROPOSED MALE HEALTH CURRICULUM FOR FAMILY PHYSICIANS

7.1. Introduction

The evaluation of a new curriculum would have been more comprehensive if it were possible to evaluate a new curriculum by performing a pre-implementation evaluation, implementing the curriculum into a two-year residency program and conducting a post-implementation evaluation. These evaluations could then be compared to a school where such a curriculum had not been introduced. In order to ensure a rigorous process in a timely manner, this approach would not have served the purpose it was intended for. It was therefore decided to create an Expert Panel that could give feedback about the curriculum. This feedback would then be used to make changes to the curriculum (Appendix B) with the potential for presenting it to different medical schools for possible implementation.

7.2. Composition of Expert Panel

The Expert Panel should include a variety of individuals representing different stakeholders in a curriculum on male health. Invitations to evaluate and critique the curriculum were sent to the following people:

Dr. EK. Lecturer in sexology in the Department of Urology, South Africa

Prof. AW. Chair of a Men's Health Centre, Great Britain

Dr. RM. Director of Andrology Australia

Dr. DP. Editor of American Journal of Men's Health, USA

Dr. MD. Urban Family Physician, Canada

Dr. JM. Rural Family Physician, Canada

Dr. TD. Urologist and interest in male sexual health, Canada

Dr. TA. Educational and Curriculum specialist, CFPC

BG. Men's Health Coordinator. Population Health, Canada

7.3. Request to the Expert Panel

The members of the Expert Panel were asked to provide written feedback on the curriculum presented to them. The feedback could be given in the form of a general report, a report that was based on a series of suggested questions or discussion points, or answers to the suggested questions or discussion points. The suggested questions or discussion points were the following:

1. What is your overall impression of the new proposed curriculum?
2. Do you believe there is a need for such a curriculum? Please elaborate on your answer.
3. Please list any areas that are in need of improvement and please indicate specific suggestions for improvement in these areas
4. Please comment on resources that might be needed to deliver a curriculum such as this.

Please include in your feedback both human resources, as well as non-human resources such as financial, facilities, equipment or any other if appropriate.
5. Please comment on the topics and procedures listed in the curriculum. List any topics that should be removed or added to the lists.
6. Please comment on the setting and format of delivering this curriculum.
7. Please comment on the methods of assessment of residents as well as the different tools of assessment that were recommended.
8. Please discuss any other comments you might have, related to this curriculum proposal.

7.4. Feedback from Expert Panel.

The entire Expert Panel elected to give their feedback in the form of answers to the questions posed to them. Some of them also added their own opinions in a separate report. The quality of the feedback was rich. It appeared that the members of the panel were enthusiastic and very engaged in the project. One of the experts also sent me a copy of a male health curriculum that is going to be introduced in Australia in the near future.

The feedback is summarized as follows: The different comments that emerged from the questions that were posed to the Expert Panel are paraphrased under each question. Following that, the general themes that evolved are listed.

7.4.1. What is your overall impression of the new proposed curriculum?

- Well-organized and easy to follow.
- Comprehensive inclusion of specific male health topics / procedures.
- Appropriately follows and incorporates the CanMEDS-FM framework.
- Adaptable.
- Incorporates most of the critical steps in curricular design.
- Framework is excellent.
- This curriculum would be an asset to any Family Medicine Training Program.
- Traditional approach to educational design.....not....lead to more competent family physicians. Reasons: disease and anatomically based rather than presentation based.
CanMEDS also too vague for proper assessment.

7.4.2. Do you believe there is a need for such a curriculum?

- Most definitely! Surprised that it is absent in family medicine training. That puts strains on healthcare system if urologists have to deal with it.
- Neglected area in health care.
- Topics are not clearly in the domain of any specialist.
- Lots of women's health training – almost no male health training.
- Not sure that there is a need for a new curriculum however that there is a need to clarify the competency expectations for family physicians in this area of health.

7.4.3. Please comment on any areas in need of improvement.

- Needs assessment needs to include students and patients as well.
- State entry requirements or pre-requisites.
- Describe length or desired volume of patient interactions.
- Detail of organizational structure, e.g. distributed sites, faculty development of preceptors.
- An interesting start, but I would use the more selective key feature approach.

7.4.4. Please comment on resources that might be needed to deliver this curriculum.

- It will take significant resources to train family physicians to deliver this curriculum.
- A male health clinic would accomplish the goal but will need up-front costs for space, staff and other resources. Minimal equipment would be needed.
- Facilities should be male-friendly.
- Finding enough male patients to use as teaching material.

- I don't see any major new or added impact from a resource point of view.

7.4.5. Please comment on the topics and procedures listed in the curriculum

Most members of the panel merely listed additional topics and procedures that could be added to the lists given in the curriculum. These suggestions are listed in no particular order:

- Anabolic steroid use.
- Chronic orchalgia.
- Penile and spermatic cord block.
- Supra-pubic catheter insertion.
- Combine physical exams as "Sensitive Physical Exams".
- Spermatocoele.
- Social issues: masculinization, male socialization, poverty, cultural awareness.
- Occupational health issues.
- Prostatic massage.
- Men's weight issues: obesity, anorexia, Adonis complex.
- Anger management.
- Overactive bladder.
- Delayed or early onset puberty and other puberty related issues.
- Trauma to the genital area, including penile fracture.
- Dermatological conditions of the genital area, e.g. pearly penile papules.
- Hematospermia.
- Urinary incontinence.
- Basic interpretation of semen analysis.

- Testicular exam should be examination of the scrotal content.
- Klinefelter's is a such a big issue I believe it warrants specific mention (T deficiency, infertility psychosocial impacts, etc.) .. it is the quintessential andrological disorder and its massive under-diagnosis an indictment of medical systems worldwide.

7.4.6. Please comment on the setting and format of delivering this curriculum.

- The setting needs to be more clearly defined: Is it rotation-based, longitudinal or elective?
- Partnering with an urologist or male health clinic would be ideal.
- Partnering with community agencies participating in male health issues.
- Strongly suggest online format with podcasts, etc.
- Most certainly would have to involve community faculty members.
- Most male health problems are diagnostic challenges; therefore the best settings would be offices, clinics and emergency rooms.

7.4.7. Please comment on the methods of and tools for assessment.

- The assessment is primarily formative. Consider a male health station in a national OSCE exam.
- Field notes and procedure logs helps learner keep track of learning.
- Reflective essay good idea to bring closure.
- Suggest an advocacy project: e.g. link with a community agency and create a brochure on a topic.
- Need a male physical exam checklist.

- A portfolio approach is the way to go.
- We do not actually recommend that the main descriptors on the Field Notes be the CanMEDS-FM roles as they are not granular enough for effective assessment and feedback, though they can be included as secondary boxes. The recommended primary descriptors are the skills and phases and behaviors.

7.4.8. Please discuss any other comments you might have, related to this curriculum.

- Well thought through and good grounding for the clinical competence of practitioners.
- Lots of good potential here.

7.4.9. General Feedback.

- Remaining challenges we have heard during our community consultation is that men often feel uncomfortable sometimes speaking to their family doctor about sensitive issues.
- It should address how family physicians engage with men in addressing modifiable risk factors.
- The curriculum lacks a discussion on how to address systemic barriers that result in reduced use of health care services by men.
- This curriculum focusing on male health issues can bring that interest and competency to family doctors and will lead to better care of male patients.
- Being exposed to males and their unique disease profile in a family medicine clinic will bring the interest, but also the need for further knowledge and skills in dealing with male problems.

- We have adopted the term “Male Health Curriculum” to include boys and adolescent men.
- Case studies or problem-based learning would be another method of delivering the curriculum.

7.5. Reflection on the feedback from the Expert Panel.

The feedback from the experts brought new insights into the curriculum per se, as well as in the healthcare of men in general. This concept of calling it a “male health curriculum” instead of a “men’s health curriculum” is so convincing that this change will be made in future versions of the curriculum.

It was also satisfying to hear again that there is a great need for such a curriculum from most of the panel members. The majority of the members realized that there would be upfront costs and resources involved to get this curriculum off the ground. Several members specifically highlighted a need for Faculty Development.

The plethora of suggested topics to add to the curriculum was unexpected. A fair portion of these topics will be included in a future version of the curriculum. Some of the suggested topics; however, did not fall in the scope of a family physician’s practice. Examples of these are chronic orchalgia and Klinefelter’s syndrome. A good point was however made that the focus of family physicians are often to diagnose these conditions and not necessarily to manage them. Some topics were also excluded since they fall outside the scope of a male health curriculum. Systemic and political barriers to health care would be an example of such a problem.

It was interesting to note that some members from other countries found some topics to be outside the scope of family physicians’ practice. In some countries, family physicians would not

be expected to perform circumcisions and vasectomies; whereas, it is common in Canada for family physicians to perform these procedures.

7.6. Conclusions.

The concept of asking a Panel of Experts to review and give feedback on the curriculum was a very worthwhile endeavor. The composition of the Expert Panel also reflected different viewpoints on the delivery of healthcare to men and each gave their own unique criticism of the curriculum. In the end, the feedback was important and insightful; changes were made to the curriculum based on this feedback.

This section (Section 4) focused on the proposed curriculum for male health training in family medicine training programs in Canada. The final section that follows, Section 5, summarizes and critically looks at strengths and areas of possible future change in this research endeavour.

SECTION 5

DISCUSSIONS AND CONCLUSIONS

8. DISCUSSIONS, CRITICAL ANALYSIS AND CONCLUSIONS

8.1. Introduction

The famous quote by Herbert Spencer began this journey with; “*What knowledge is of most worth?*”[1] An literature review revealed a paucity of literature on the subject of education about male health in the training of family physicians, not just in in Canada, but around the world.[2] This was especially significant when there was abundant education on women’s health in the same training programs. It was also significant given that the statistics show that men die on average five years earlier than women.[3,4]

As the College of Family Physicians of Canada (CFPC) rolled out its Triple C curriculum in 2011, the timing was ideal to align any new attempt to create a sub-curriculum with the goals and objectives of the overarching Triple C curriculum.[5]

8.2. Methodology.

There are currently only 17 family medicine residency training-programs in Canada. The reality was that only a small number of Program Directors would be willing to respond to yet another survey request. It would also be unrealistic to expect that a significant number of practicing family physicians would take part in a quantitative survey sent to their mailboxes. For these reasons, it was decided to use a mixed methods design to data gathering and use questionnaires, interviews, Focus Groups and an Expert Panel. This choice of method served the purpose of the study very well as the final quality of data collected were rich and fulfilled the criteria of reliability, validity and generalizability.[6] (p.190)

This project also showcased an example of action research.[7] The different phases of the project built on each other as they moved forward. The data gathered in Phase 1 was used to build the curriculum in Phase 2. The curriculum was then disseminated to an Expert Panel in Phase 3 for their feedback. The encompassing goal was to improve the data and outcomes as the project moved forward. This is one of the cardinal objectives of action research.[7]

8.3. Current state of affairs.

It was clear that very little time, if any, was given to the teaching of male health in the various family medicine residency training-programs in Canada. None of them had any rotations focusing on male health and only five mentioned that they had goals and objectives for teaching male health topics in their academic curriculums.[8] The family physicians also agreed that they received very sporadic and poor training in male health and most of their training came after graduation when they were faced with the reality of practice.

Men are known for their hesitance to go to physicians.[9,10] It is then a less optimal situation when a man does decide to seek medical help, just to find a physician who is poorly trained to meet his needs. This puts an extra burden on the health care system as these patients will often be referred to specialists at a higher cost and with long wait times. Often these referrals will be inappropriate as the issues could have been dealt with by the family physician or it was referred to an inappropriate specialist due to lack of knowledge on the part of the family physician. Fortunately, men are becoming more aware of preventative health care and, it is hoped, will be visiting their family physicians more often in the future.[10] Certain conditions that are unique to men and have not received a lot of attention in the past because of their “lack of importance” are becoming more important. Erectile dysfunction is a good example of such a condition, as it is

now known to be a marker for underlying cardiovascular disease.[11] It is therefore important to educate future physicians on these aspects.

8.4. Needs identification.

Now that it has been identified that a gap does exist in the training of family physicians, there needs to be some consideration given as to what training in male health should entail. The Program Directors and family physicians in the Focus Groups were asked this question. The information obtained was for the most part not surprising.[12] Lists were created for general conditions, sexual and reproductive health conditions and procedures. Late onset hypogonadism (also known as Andropause) did make it to the top-ten list and the hypothesis is that it was due to pressure from pharmaceutical companies. It is not in dispute that the condition does exist, but recent releases of testosterone replacement therapies on the market have put pressure on physicians to learn more about this condition.

Although the Program Directors did not add any topics on the surveys that were sent to them, other topics were added during the interviews and Focus Groups.[12] Preventative healthcare for men, mental health issues and men who have sex with men are some of the topics that featured strongly in these conversations. The topic of interpretation of semen analysis came up during a Focus Group, as well as from one of the Expert Panel members.

Although there are many other conditions that affect men, the focus of this project was on those conditions that are unique in men or have unique presentations or treatment options.

8.5. Curriculum

The challenge was to design a curriculum that meets the requirements of traditional curriculum theory [13,14] but then also fits the Triple C framework of the College of Family

Physicians of Canada.[5] Since the curriculum is intended for use by family medicine residency training programs, the Triple C framework was used as a starting point and different aspects of traditional curriculum theories and practices were blended into that. The final project will therefore be familiar to the different users but will still stand strong against critique through a traditionalist lens.

The content of the curriculum was derived from all aspects of the previous phases of the project. The different conditions that were listed in the “Family Medicine Expert” role were all compiled from data obtained from the surveys, interviews and Focus Groups, as well as from the literature review that was undertaken. The other areas in the curriculum that cover aspects of setting, assessment and evaluation also contained ideas from experience with other curricula in the past.

A draft version of the curriculum was circulated to the Research Advisory Committee for feedback before sending it out to the Expert Panel. Significant changes were also made based on the feedback from Experts in the curriculum field. This revised curriculum was then used in the Final Phase of the project.

8.6. Expert Panel.

The use of a Panel of Experts was an interesting undertaking and added a magnitude of value to the project. First it was valuable to reconnect with a previously established network of individuals with an interest in male health. This also led to the creation of more connections and identification of other individuals that would be important to include on this panel. In this fashion, the network of male health “experts” was expanded and would probably be built on in the future. All of these factors are desired outcomes of action research.

The variety of individuals on the panel represented different countries, different work spheres and different specialties. This ensured rich feedback and objective critique of the draft curriculum presented to them.

The feedback from the Expert Panel was used to produce a final version of the curriculum. This curriculum is presented in Appendix B.

8.7. Limitations

There were limitations to this project. The first one that comes to mind is the lack of patients' input in any phase of the project. It would have been interesting to have the input of patients especially in the first phase of the project, but also in every phase of the project. After all – the final outcome from any medical education endeavour is to benefit the health and well-being of patients. Patients might however have felt overwhelmed with the task of contributing to the creation of a curriculum from scratch. The next step in the process can however be to distribute the curriculum, as it stands right now, to a select group of patients for their input and critique.

Some can also argue that there was very little input from the students' aspect, apart from the two students in one of the Focus Groups. Even though students did form part of the rural Focus Group, the same argument would stand for why students might have a better input into a draft curriculum that has already passed the initial scrutiny of reviewers. With only two students, it is also difficult to generalize or transfer their comments to the bigger student community. The level of their training, their perceived future career in medicine and also the fact that their preceptors were present in the room during the Focus Group might have influenced their comments.

Reflecting on the Focus Groups, it would have added value to the project if the rank lists that were given to the Program Directors had also been given to the Focus Groups participants to

rank. This would have given the Focus Groups a foundation to build their discussion on and might have provided richer data.

8.8. Conclusions and Recommendations.

There are so many practicing family physicians who have not had the opportunity to seek out or receive any formal training on issues, skills or procedures related to male health. It is a sad state of affairs and this research has demonstrated a need for including male health in the curriculum for family medicine residents. Fortunately, there are always continuing professional development programs that focus on specific areas and family physicians can avail themselves of these programs. Some of the learning opportunities mentioned in the proposed curriculum for male health training were aimed as self-directed learning and these can be incorporated into professional development by practicing physicians.

The many Program Directors of family medicine training-programs will now have the opportunity to evaluate their current curriculums and determine whether they should/could include parts or the entire male-health curriculum in their program. It is flexible and can be modified to suit specific needs and situations in various training programs and settings, not only in Canada, but also around the world. This curriculum will be presented to the Division of Academic Family Medicine in the College of Family Physicians of Canada for their consideration. The final version of the curriculum will also be included in a manuscript that will be submitted for publication in family medicine journals and medical educational journals in Canada.

Residents and students, who train in a program that does not currently include specific male health education, can use this curriculum to guide their self-directed learning projects. This curriculum gives structure and also provides a core list of topics and procedures that family

physicians have found to be important to be competent in, so as to provide competent and adequate care to their male patients.

Although this curriculum is designed with family physicians in mind, it is not limited to physicians. Other health care providers such as pharmacists, nurse practitioners and psychologists can also benefit from using this curriculum as a baseline for their continuing professional learning.

In the end, the proof is in the pudding as the saying goes. Although this curriculum has been evaluated in the “petri dish”, it needs to be assessed in action in the real world. Once it has been used in some form or another in training programs, feedback should be sought and changes made based on such feedback. Ongoing evaluation of the curriculum has been built in and needs to be carried out frequently by training programs to ensure the success, validity and acceptance of the curriculum.

Future research could include measuring change in practice of family physicians who were trained in a program that incorporates this curriculum. Evidence-based outcomes related to the health of male patients should also change due to this curriculum and can be measured in clinical studies and population-based epidemiological studies.

Even though this project was intended to create a male health curriculum for family medicine training, the additional benefit of conducting this research was also to focus the attention of different stakeholders on the area of male health. Various contacts were made and networks have been established to take the health needs of male patients to the next level – the political arena. Policy makers must be informed about the disparity that exists between the health of male and female patients. Future healthcare planning needs to include male health experts at the table.

The absolute final test of the curriculum would be to determine whether the gap that currently exists, between when men die, compared to women, actually decreases.

“Men are considered to be rather uncomplicated, you know. They die early but no one seems to care.” – Program Director.

This quote from an interview with a Program Director summarizes the reason why this project was felt to be necessary. The hope is that in future men will not die early because when they seek medical help, they will find competent family physicians who are equipped to address their concerns and are empathetic to their needs.

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APPENDIX A

APP A: QUESTIONNAIRE USED TO SURVEY PROGRAM DIRECTORS IN PHASE 1

Men's Health Curriculum in Family Medicine Training in Canada

- 1 What is the name of your University?
- 2 What is the name of your site / unit?
- 3 What is your role in this program?
Program Director
Site Director
Other (please specify)
- 4 Is your site considered
Rural / Remote (<70 000)
Urban (>70 000)
Other (please specify)
- 5 How many residents (R1) to you take into your site per year?
- 6 Does your program have a women's health rotation?
Yes
No
- 7 If yes to Question 6, how many weeks are dedicated to this over the 2 year program?
- 8 Do you have dedicated goals & objectives for the Women's Health rotation?
Yes
No
Does not apply
- 9 Do you have a Women's Health Curriculum that you follow
for your teaching sessions / academic days?
Yes
No
- 10 Does your program have a Men's Health rotation?
(If no - skip to question 13)
Yes
No
- 11 If yes to Question 10, how many weeks are dedicated to this over the 2 year program?
- 12 Do you have dedicated goals & objectives for the Men's Health rotation?
Yes
No
Does not apply
- 13 Do you have a Men's Health Curriculum that you follow
for your teaching sessions / academic days?
Yes
No
- 14 If you answer "No" to questions 10 and/or 13, where do your residents get most
of their training in Men's Health?
Urology rotation
Women's Health rotation
Other (please specify)

Which of the following topics are important to cover in a men's health curriculum in a 2 year Family Medicine training program? Please check all that apply, but keep in mind realistic time and resource constraints.

Column A - check all that apply. Column B - rank your top 10 from 1 - 10, from the ones you checked in column A

	A	B
15 Testicular Cancer		
16 Prostate Cancer		
17 BPH		
18 Testicular Torsion		
19 Erectile Dysfunction		
20 Andropause		
21 Premature Ejaculation		
22 Peyronie's Disease		
23 Male Infertility		
24 Contraception for Men		
25 UTI in Men		
26 Penile Cancer		
27 Phimosis		
28 Paraphimosis		
29 Gynecomastia		
30 Undescended Testes		
31 Varicocele		
32 Hydrocele		
33 STI's		
34 Other Sexual Dysfunction		
35 Balanitis		
36 Priapism		
37 Genital Trauma		
38 Epididimitis		
39 Prostatitis (Acute)		
40 Prostatitis (Chronic)		
41 Klinefelter Disease		

Please do the same for the following conditions: Please check all that apply, but keep in mind realistic time and resource constraints.

Column A - check all that apply. Column B - rank your top 10 from 1 - 10, from the ones you checked in column A

	A	B
Male specific issues of:		
42	Cardiovascular	
43	Respiratory	
44	Neurological	
45	Musculo-skeletal	
46	Gastro-intestinal	
47	Skin	
48	Alcoholism	
49	Abuse	
50	Psychiatry	
51	Eyes and ENT	
52	Pharmacology	

Men's Health Curriculum in Family Medicine Training in Canada (page3 of 3)

Which of the following procedures should be taught to residents?
(Again keep in mind realistic time and resource constraints)

In column A - check all that apply. In column B - rank your top 5 from 1 - 5

	A	B
53 Newborn Circumcision		
54 Adult Circumcision		
55 Vasectomy		
56 Bladder Catheterization		
57 Prostate Biopsy		
58 Drain Hydrocele		
59 Reduce Paraphimosis		
60 Intra-cavernosal Injections		

Are there any other topics that you consider important for a Men's Health Curriculum that have not been mentioned yet? Please list them.

Thank you for your time completing this questionnaire!
Your help with this project is very much appreciated.

Andries Muller

APPENDIX B
APP B: MALE HEALTH CURRICULUM FOR FAMILY PHYSICIAN TRAINING.

Male Health Curriculum for Family Medicine Training in Canada

A. Preamble

The College of Family Physicians of Canada (CFPC) has recently released a document describing the Triple C Curriculum in family medicine.[1]. Triple C is a competency-based curriculum in family medicine that is Comprehensive, focused on Continuity and Centered in family medicine. The information in this document, combined with information obtained from the evaluation objectives in Family Medicine[2] and the information gathered from a need assessment[3] and feedback from an Expert Panel were used in creating this proposed curriculum structure. The traditional requisites and theory of curriculum design were still followed and in this regard the book by Professor Ronald Harden; “*Essential skills for a medical teacher: An introduction to teaching and learning in medicine*” was found to be very helpful.[4] Another useful resource was a publication from the John Hopkins University Press by Kern et al; “*Curriculum development for medical education: A six-step approach*”. [5]

The structure of the curriculum is based on the CanMEDS-FM framework, as described in the Triple-C curriculum document.[1] The Key competencies are reproduced from the Triple-C Competency based Curriculum document.[1] Key competencies are to be acquired by the residents in the program. Examples of scenarios in a male health curriculum were added in *italics*. Family Medicine topics and procedures related to male health are discussed under the first CanMED role, The Family Medicine Expert.

B. Goals and objectives

The CanMEDS-FM framework forms the basic goals of this curriculum.[1] This framework consists of seven roles in which family physicians are expected to be competent. These roles are:

1. The Family Medicine Expert
2. Communicator
3. Collaborator
4. Manager
5. Health Advocate
6. Scholar
7. Professional

These goals are discussed in more details in the following section. Within the different roles are key competencies expected of competent family physicians. The specific objectives for specific disease entities and procedures related to male health are mentioned under the role of the family medicine expert.[1]

B.1 The Family Medicine Expert.

Key Competencies: (Family Physicians are able to.....)

1. Integrate all the CanMEDS-FM roles as mentioned above in order to function effectively as generalists.
2. Establish and maintain clinical knowledge, skills and attitudes required to meet the needs of the practice and patient populations served. (*Demonstrates knowledge of the most up to date evidence based information on the topics listed in Table B.1.*)
3. Demonstrate proficient assessment and management of patients using the patient-centered method. (*Demonstrates an appropriate approach to male patients.*)

4. Provide comprehensive and continuing care throughout the life cycle incorporating appropriate preventive, diagnostic and therapeutic interventions. (*Demonstrates knowledge of the screening guidelines related to the topics listed in Table B.1.*)
5. Attend to complex clinical situations in family medicine effectively. (*See Table B.1.*)
6. Demonstrate proficient and evidence-based use of procedural skills. (*See list of procedures listed in Table B.2.*)
7. Provide coordination of patient care including collaboration and consultation with other health professionals and caregivers. (*Refer male patients to the appropriate specialists as needed.*)

The resident must show competence in dealing with the content of the curriculum in male health. Table B.1 outlines the specific topics that form the content of this curriculum.

Table B.1. List of topics that form the content of the curriculum in male health in family medicine training.

Prostate	
	Benign Prostatic Hyperplasia (BPH)
	Prostate cancer
	Prostatitis (Acute and Chronic)
Penis	
	Balanitis
	Erectile dysfunction
	Penile cancer
	Peyronie's disease
	Phimosis and paraphymosis
	Priapism
Scrotal contents	
	Epididymitis
	Hydrocele
	Testicular cancer
	Testicular torsion
	Undescended testis
	Varicocoele
	Spermatocoele
General	
	Abuse (physical, emotional and sexual)
	Alcoholism
	Contraception for men
	Gynecomastia
	Issues specific to men who have sex with men (MSM)
	Male infertility
	Interpretation of semen analysis
	Dermatological conditions of the genitalia
	Mental health concerns: depression, anxiety, suicide.
	Osteoporosis in men
	Premature ejaculation
	Sexually Transmitted Infections (STI's) in men
	Testosterone deficiency syndromes
	Urinary tract Infections (UTI) in men
	Weight issues: Anorexia, obesity, Adonis complex.
	Urinary incontinence / overactive bladder
	Disorders related to puberty
	Trauma to the genitalia

A list of objectives can be designed for each of the topics utilizing the most up to date evidence and guidelines for the specific topics. The general themes for these objectives were based on the phases of the clinical encounter:[2]

- Hypothesis generation (preliminary differential diagnosis)
- History (gather the appropriate information)
- Physical examination (gather the appropriate information)
- Investigation (gather the appropriate information)
- Diagnosis, including problem identification (interpret information)
- Treatment (or management)
- Follow-up
- Referral

These phases of the clinical encounter were then used to create the specific objectives for the disease entities listed in Table B.1. This will be illustrated by using the first disease entity, benign prostatic hyperplasia (BPH), as an example. (See Figure B.1.)

At the end of the family medicine residency program, and in a man who presents with symptoms and signs consistent with Benign Prostatic Hypertrophy (BPH), the resident will:

- Be able to list the different diagnoses that need to form part of a preliminary differential diagnosis
- Use a patient-centered approach in obtaining a thorough history of the presenting problem as well as a relevant review of systems
- Skillfully perform a physical examination, including a digital rectal examination, in order to obtain the necessary information
- Selectively order appropriate further investigations, e.g. blood tests, imaging, urine analysis.
- Interpret all the information gathered in order to come to a definite diagnosis
- Select the appropriate management option(s) for each individual patient
- Arrange for follow-up care in order to ensure continuity of care

Figure B.1. Example of objectives created for benign prostatic hyperplasia.

Apart from knowing the indications, contra-indications and possible complications, the resident must be able to demonstrate appropriate technical skills in performing core procedures as outlined in Table B.2. Detailed objectives can again be created for each

procedure, based on the most current guidelines for that particular procedure. Table B.2 also outlines enhanced skill procedures that are optional for the resident to learn.

Table B.2. List of procedures typically performed on men that form part of the content of the curriculum in male health in family medicine training

Core procedures	
	Bladder catheterization
	Digital rectal examination (DRE)
	Drain hydrocele
	Reduce paraphimosis
	Testicular examination / Scrotal examination
	Penile block
Enhanced procedures	
	Intra-cavernosal injection
	Newborn circumcision
	Vasectomy
	Suprapubic bladder catheterization

B.2 Communicator

Key Competencies: (Family physicians use the patient-centered clinical method and)

1. Develop rapport, trust and ethical therapeutic relationships with patients and families. (*Effective and sensitive communication with male patients who are traditionally not keen on seeking medical help.*)
2. Accurately elicit and synthesize information from, and perspective of, patients and families, colleagues and other professionals.
3. Accurately convey needed information and explanations to patients and families, colleagues and other professionals.

4. Develop a common understanding on issues, problems and plans with patients and families, colleagues and other professionals to develop, provide and follow-up on a shared plan of care.
5. Convey effective oral and written information.

B.3 Collaborator

Key Competencies: (Family physicians are able to)

1. Participate in a collaborative team-based model and with consulting health professionals in the care of patients. (*Shared care with specialists such as urologists or psychiatrists with certain conditions such as prostate cancer and depression in male patients.*)
2. Maintain a positive working environment with consulting health professionals, health care team members, and community agencies.
3. Engage patients or specific groups of patients and their families as active participants in their health care. (*Involving male patients of different ages in screening for appropriate conditions e.g. teenagers and testicular cancer, and older men and prostate cancer.*)

B.4 Manager

Key Competencies: (Family physicians are able to)

1. Participate in activities that contribute to the effectiveness of their own practice, healthcare organizations and systems.
2. Manage their practice and career effectively.
3. Allocate finite healthcare resources appropriately. (*Manage conditions appropriately and only refer to specialists when needed.*)

4. Serve in administration and leadership roles, as appropriate.

B.5 Health advocate

Key Competencies: (Family physicians are able to)

1. Respond to individual patient health needs and issues as part of patient care.
2. Respond to the health needs of the community that they serve. (*Advocate for the health of their male patients.*)
3. Identify the determinants of health within their communities.
4. Promote the health of individual patients, communities and populations. (*In this case – all male patients of all ages.*)

B.6 Scholar

Key Competencies: (Family physicians are able to)

1. Maintain and enhance professional activities through ongoing self-directed learning based on reflective practice. (*Keep up to date in the field of male health.*)
2. Critically evaluate medical information, its resources and its relevance to their practice and apply this information to practice decisions.
3. Facilitate the education of patients, families, trainees, other health professional colleagues and the public.
4. Contribute to the creation, dissemination, application and translation of new knowledge and practices. (*Participate and initiate research initiatives involving male health, quality assurance strategies, etc.*)

B.7 Professional

Key Competencies: (Family physicians are able to)

1. Demonstrate a commitment to their patients, the profession, and society through ethical practice.
2. Demonstrate a commitment to patients, the profession-, and society through participation in profession-led regulations.
3. Demonstrate a commitment to physician health and sustainable practice.
4. Demonstrate a commitment to reflective practice.

C. Setting

C.1 Rotation

Even though the trend in family medicine training in Canada is to eliminate rotation-based training as much as possible, the features of such a setting will still be described. This setting might be applicable for learners who decide to complete an elective in male health to enhance their learning.

Some training programs might have access to a male health clinic. This type of clinic might be ideal for exposure to male-specific problems such as infertility, sexual dysfunction, sexually transmitted infections and mental health. Clinics such as these often have a multi-disciplinary approach and learners would get exposure not only to the disease process but also to an inter-disciplinary approach to the delivery of health care.

Another rotation that would ensure that the learner is exposed to male-specific health would be that of urology. The experience in male health education might be diluted, as urologists do not only deal with problems in men but also in women. The learner would however be guaranteed that a number of male health topics would be covered during a rotation of an appropriate length of time to become competent in these skills.

C.2 Family Medicine Clinic

It is anticipated that the majority of topics in a male health curriculum for family medicine will be covered while working in a family medicine clinic setting. The resident should ensure that he or she is dealing with a proportionate number of male and female patients of different ages. As male patients are known not to seek medical help as often as females,[6,7] it is common to have a slightly higher number of female patients. Opportunities should therefore be created to initiate a discussion with male patients around their specific health needs.

C.3 Simulation

Wherever available, simulation models (or even simulated patients) should be used to obtain and practice skills that are not available from dealing with regular patients.[4,8] Examples of these might be a pelvic model to practice performing a digital rectal examination or scrotal examination.

Another form of “simulation” is that of problem based small group learning modules. (PBSGL). Different modules on male health topics exist already and new ones can be created for areas in which it is typically difficult to obtain clinical experiences.

C.4 Formal teaching.

Some aspects of the curriculum lend itself to more formal teaching. This could be in the form of workshops, problem-based small group discussions and the rare didactic lecture. Topics that are hard to cover in a clinical setting should be selected for this type of teaching.

C.5 E-learning / Directed self-learning.

As is the case in any other field of study, not all aspects of a field will be covered in a clinical setting. The responsibility is therefore on the learner to avail himself/herself of numerous electronic learning opportunities, to fill the gap in their educational experience. Examples of these are podcasts, training DVD's and simulation websites. The competencies and expected outcomes of the curriculum should direct the learner in identifying the gaps and finding resources to fill the gaps.

D. Assessment

Several forms of assessment exist. The first distinction is between formative and summative assessment.[5] In the former, feedback is given to the student about his or her performance and in the latter a decision is made whether a student has achieved the desired outcomes of the curriculum. Assessment can take the form of written examinations, oral examinations, Objective Structured Clinical Examinations (OSCE's), direct observations and reflective exercises.

As this curriculum in male health is seen as a 'sub curriculum' of "care of the adult", a portfolio assessment is recommended. A portfolio is a collection of evidence that learning has taken place.[4,8] Different evaluation tools can form part of a portfolio. Field notes [9, 10], reflection essays, anecdotal records and procedure logs are key tools that are recommended for forming part of a male health portfolio.

D.1 Field notes. [9, 10]

Preceptors predominantly, but not exclusively, complete field notes. [9, 10] Peers, support staff and patients can also complete them. Field notes are one-page feedback sheets that focus on a single patient encounter, whether it was counseling, physical examination, a procedure or any other form of patient contact. This feedback is to be based on either an in-person interaction or a video recorded interaction. In fact, all of the CanMEDS-FM roles can be evaluated in this way. A grade of satisfactory or unsatisfactory is to be given on the observed item.

Field notes can be paper based or electronically entered. Learners have the responsibility to collect as many field notes as possible on a variety of skills and competencies. This way they can show compliance with achieving the different outcomes expected of the curriculum. Field notes showing “satisfactory” must be obtained in all of the core topics as identified in the structure of the curriculum. (See Figure B.2 Example family medicine field note.)

Family Medicine Field Note																																			
Name: _____		Date: _____																																	
Evaluator: _____		Setting: _____																																	
Case description:																																			
General feedback:																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 2px;">Skill Dimension</th> <th style="text-align: center; padding: 2px;">Satisfactory</th> <th style="text-align: center; padding: 2px;">Unsatisfactory</th> <th style="text-align: center; padding: 2px;">Not applicable</th> </tr> </thead> <tbody> <tr><td style="padding: 2px;">Patient-Centered</td><td></td><td></td><td></td></tr> <tr><td style="padding: 2px;">Communication skills</td><td></td><td></td><td></td></tr> <tr><td style="padding: 2px;">Clinical reasoning</td><td></td><td></td><td></td></tr> <tr><td style="padding: 2px;">Selectivity</td><td></td><td></td><td></td></tr> <tr><td style="padding: 2px;">Professionalism</td><td></td><td></td><td></td></tr> <tr><td style="padding: 2px;">Procedure skills</td><td></td><td></td><td></td></tr> </tbody> </table>				Skill Dimension	Satisfactory	Unsatisfactory	Not applicable	Patient-Centered				Communication skills				Clinical reasoning				Selectivity				Professionalism				Procedure skills							
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Collaborator																																			
Manager																																			
Health Advocate																																			
Scholar																																			
Professional																																			
Comments if unsatisfactory:																																			
Signature: _____																																			

Figure B.2. Example of a family medicine field note.

D.2 Reflection essays.

Learners are required to write a reflective essay on their experience dealing with the health issues of male patients. Mention should be made of any identified gaps in achieving the competencies as outlined in the goals and objectives of the curriculum, as well as, how the learner filled these gaps with self-directed learning. The reflective essay is expected to follow the CanMEDS-FM roles. The Site Director for the training program grades the essays and a grade of either unsatisfactory or satisfactory is given to

the assignment. If an unsatisfactory grade is obtained, the reflective essay must be repeated until a satisfactory grade is obtained.

D.3 Procedure logs.

The learner must maintain a procedure log of all procedures performed as described in Table B.2. This log must indicate if the learner assisted in the procedure or performed it independently. The preceptor must indicate if an independently performed procedure was performed satisfactory or unsatisfactory. All core procedures must be performed satisfactorily. (See Figure B.3. Example family medicine procedure log: male health) Field notes can also be used to give feedback to learners about procedures they have performed. These can be added to strengthen their portfolios.

Family Medicine Procedure Log: Male Health						
Core procedures						
	Assisted	Independent	Satisfactory	Unsatisfactory	Not applicable	Number performed
Digital Rectal Examination						
Testicular / scrotal examination						
Reduce paraphimosis						
Bladder catheterization						
Drain Hydrocoele						
Penile block						
Enhanced Procedures						
	Assisted	Independent	Satisfactory	Unsatisfactory	Not applicable	Number performed
Newborn circumcision						
Vasectomy						
Intra-cavernosal injections						
Suprapubic bladder catheterization						
Comments:						

Figure B.3. Example of family medicine procedure log: male health.

D.4. Anecdotal Records

Different stakeholders (preceptors, staff, peers, patients) may write letters, reports or other forms of documentation. These documents can be added as additional of anecdotal reports to the portfolio of the student and might enhance the overall 360 degree or “multi source feedback” portion of the assessment.

Beyond the program level, the learners will have a summative assessment during the CCFP’s certification examination. This examination currently consists of a case-based written examination (SAMPS or Short Answer Management Problems) and a case-based oral examination (SOO or Simulated Office Oral). Traditionally, both components of the examination have been used to test a student’s knowledge on male health issues.

E. Curriculum evaluation

A number of questions should be asked when a curriculum is being reviewed and evaluated. Harden proposes ten questions that should be asked.[4] For the purpose of this curriculum, the questions were modified and abbreviated as follows:

1. Are the learning outcomes of the curriculum achieved?
2. Is the curriculum content relevant and up to date?
3. Is the curriculum organization appropriate?
4. Are the educational strategies (settings) and opportunities appropriate and successful?
5. Is the assessment valid and reliable?

According to Kirkpatrick there are four levels for assessing effectiveness of training:[11]

a. Opinion / reaction

As part of “student-centered-education, current and recent residents will be surveyed to ascertain their satisfaction with the curriculum. They will be asked if it met their needs and how it can be updated in the future.

b. Competence / learning

Student’s performance in certification examinations are evaluated and compared to the national performance. A breakdown of performances on male health-related questions could be obtained from the College of Family Physicians of Canada.

c. Performance / behavior transfer

Resident’s behavior during and at the end of their training program can be assessed to evaluate how they perform in their daily interaction with patients. The same evaluation tools as described under “assessment” can be used at the start and at the end of their training.

d. Outcome / results

The learners’ performance in independent practice is assessed. This is difficult to measure but a 360 degree type of assessment procedure could be developed. [8] Surveys are sent to specialists, patients, supporting staff and other related health-care providers. The surveys assess different aspects of a practicing physician’s care of male patients. The Practice Enhancement Program (PEP) in Saskatchewan would be a good example of such an evaluation. <http://www.pepsask.ca>. [12]

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APPENDIX C

APP C: PERMISSION TO USE ARTICLE: AMERICAN J OF EDUC RESEARCH

Monday, 10 June, 2013 1:01:39 PM Central Standard Time

Subject: Re: Permission to use article
Date: Saturday, 1 June, 2013 5:44:43 PM Central Standard Time
From: service
To: Muller, Andries

Dear Colleague,

Thanks for your response.

As we are an open access publishing, you could use the article published by us as you like.

Please feel free to contact us if you have any questions.

Best wishes,

Philip Smith
Science and Education Publishing

-----Original Message-----

From: "Muller, Andries" service@sciepub.com
To: "service@sciepub.com" <service@sciepub.com>
Date: Fri, 31 May 2013 21:27:53 +0000
Subject: Permission to use article

Dear Sir

I have recently published an article in your journal: Muller AJ, Ramsden VR, White G. A Review of men's health curricula in medial schools. American Journal of Educational Research. 2013;1(4)115-8 This article is a part of my thesis that I am preparing for my PhD degree and has to be inserted into my thesis. I wish to acknowledge the copyright that I believe is owned by your journal.

Would you please be so kind to grant me permission to use this article in my thesis. The University of Saskatchewan requires the following permission to be granted and I would appreciate it if you could state that in your response letter:

"Written permission to include copyright material in the thesis must be obtained from the copyright holder. This permission must also include the granting of an irrevocable, nonexclusive license to the University of Saskatchewan and the National Library of Canada to reproduce the material as part of the dissertation. While these licenses should normally be obtained at no cost, any payment which might be required by the rights holder is the exclusive responsibility of the dissertation writer. If the material has been published in an academic journal, copyright will normally have been assigned to the publisher of the journal."

I want to thank you in advance for your help in this regard.

Sincerely,
Andries
Dr. Andries J Muller

Acting Assistant Dean: Continuing Professional Learning

Page 1 of 2

APPENDIX D

APP D: PERMISSION TO USE ARTICLE: AJPNMS

Monday, 10 June, 2013 12:38:30 PM Central Standard Time

Subject: RE: Permission to use article
Date: Monday, 10 June, 2013 10:55:51 AM Central Standard Time
From: Asian Online Journals
To: Muller, Andries

Dear Dr. Andries,

We are sorry for the delay in reply. Copyright of all the articles published in Asian Online Journals are retained by authors themselves. Please refer to the copyright section of journal at <http://ajournalonline.com/index.php/AJPNMS/about/submissions#copyrightNotice>.

Let us know if you need any further information/assistance.

Kind regards,
Editorial Assistant

From: Muller, Andries
Sent: Saturday, June 01, 2013 12:50 AM
To: ajpnms@ajournalonline.com
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Dear Sir

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APPENDIX E

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To: Muller, Andries

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APPENDIX F
APP F: ETHICS APPLICATION AND CERTIFICATE.



Behavioural Research Ethics Board (Beh-REB)

APPLICATION FOR APPROVAL OF RESEARCH PROTOCOL

1. Name of researcher

Drs. Vivian R Ramsden and Gill White. Department of Academic Family Medicine. College of Medicine. University of Saskatchewan. Shari McKay. (Applied statistician) Department of Academic Family Medicine. College of Medicine. University of Saskatchewan

1a. Name of student

Andries Muller. PhD in Health Sciences.

1b. Anticipated start date of the research study and the expected completion date of the study (phase).

September, 2010 or when a Certificate of Approval has been received from the University of Saskatchewan's Behavioural REB – December, 2011. This will be a three phased project and ethics approval is being sought for all three phases of the project.

2. Title of Study

A Men's Health Curriculum for Family Medicine Residency Training Programs in Canada.

3. Abstract

During the course of a medical doctor's training, considerable time is spent on the teaching of medical issues related to women's health. Compared to this, almost no time is set aside for the teaching of medical issues unique to men. It is common knowledge that women all over the world live longer than men. Various postulations have been made as to why this is the case. As men decide to go to their doctors more frequently, the question rises whether their doctors will be equipped to meet the health needs of their male patients.

The student researcher is interested in exploring this issue in more depth and is hoping to design a Men's Health Curriculum for Family Medicine Residents in Canada that is in line with the College of Family Physicians of Canada's (CFPC) criteria for Family Medicine

Curriculums. (Accreditation Standards for Family Medicine Residency programs). As the CFPC is re-evaluating their curriculum and evaluation standards at the moment, this might be an ideal time for developing such a curriculum.

The purpose of the first phase is to gain an understanding of the quality and quantity of Men's Health topics that are addressed in Family Medicine Residency Training Programs in Canada. The information gathered through this project will be used in Phase 2 to design a Men's Health Curriculum for Family Medicine specific training programs. In Phase 3, this newly designed curriculum will be submitted to select Family Medicine Departments in Canada, Australia, South Africa, the United States of America and the United Kingdom for peer review/peer consultation. This curriculum will also be sent to a number of individuals who are perceived as experts in the field of men's health for their feedback.

4. Funding

There is no external funding for this project. All expenses will be covered by the student researcher, himself.

5. Expertise

Members of the Student's Advisory Committee have expertise in areas of curriculum design and implementation, and their advice will be sought.

6. Conflict of Interest

The researcher is in the same academic role as most of the participants. No conflict of interest is perceived.

7. Participants

In Phase 1, participants for the quantitative part of the study will be Family Physicians, most likely program directors, who are responsible for the Family Medicine Residency Training Programs in the 13 English speaking Family Medicine training programs across Canada. These participants will be identified through the Directory for Family Medicine Training Programs in Canada that is available through the CARMS (Canadian Residency Matching Service) website. The participants will be contacted by e-mail and telephone and invited to participate in this study. They will be given the opportunity to delegate this task to someone else in their program that might be more suitable to comment on their curriculum structure. All English speaking participants will be asked to complete the survey, either on paper or online. (Appendix A).

Participants (or cases) will be purposefully selected for the qualitative part of the study, based on the information that was gathered in the quantitative survey. Using a matrix, selected cases will be identified that will represent training programs that either have or do not have a Men's Health curriculum and whether they feel there is a need for one or not. Figure 1 represents this matrix and the expectation is that the letters A - D will represent at least one training program (case). This will lead to a minimum of four cases. Should the researcher feel that after four interviews, the data is not of a high enough standard, more participants will be selected until saturation occurs. It is anticipated that saturation will occur at a low number of interviews.

	Men's Health curriculum	No Men's Health curriculum
Need for a curriculum	A	B
No need for a curriculum	C	D

Figure 1. Selection of participants.

To obtain another perspective on the issues related to a men's health curriculum, two focus groups of Family Physicians will be held to discuss the need for training in men's health as well as to discuss various topics that should be included in such a curriculum. The family physicians in group one will be selected by the researcher from a pool of community faculty in Saskatoon, Saskatchewan and the second group will be from a pool of rural family physicians in Saskatchewan.

No participants are required in Phase 2 of the research project.

In Phase 3, contact will be made with the identified men's health experts and various Family Medicine Departments in the countries mentioned earlier to identify the person responsible for curriculum construction. These people will be invited to act as an "expert panel" in a peer-review process, and copies of the newly draft curriculum in Men's Health will be distributed to them. They will be asked for their general opinion, as well as to respond to specific questions related to the newly designed curriculum (Appendix B - Questionnaire.)

7a. Recruitment material

Phase 1:

Letters of Invitation/Cover Letter will be sent to participants via e-mail; as well as, via regular mail (Appendix C). Selected participants for the qualitative interviews will receive a separate invitation via e-mail and regular mail (Appendix D & E).

Phase 3:

Letters of invitation will again be sent to participants via e-mail and regular mail. Selected participants will then be sent a further letter, explaining their role in the project and what is being asked of them.

8. Consent

There will be different procedures for consent for the different phases of the study:

Phase 1:

- i. Quantitative survey: The Cover Letter will also serve as an invitation to participate in the study and will be sent with the survey or will be online before the start of the online survey (Appendix C.) Completion and return of the survey will constitute implied consent and give permission to the researcher to use the data gathered in the manner described.
- ii. Qualitative study: Verbal (and where possible, written) consent will be obtained from the participants for both the interview and the focus groups before starting the process. A copy of the Consent form will be given to the participants to keep. The Consent Form will also include sections on the review of transcriptions before publication of any material (Appendices D, E, F).

Phase 3:

Written consent will be obtained from the participants, once they agree to be part of the “Expert Panel” (Appendix H - Consent Form).

9. Methods/Procedures

This will be a mixed methodology study using both quantitative and qualitative components. In Phase 1, paper copies of the quantitative survey will be mailed to the participants and they will also be given a link to the online version of the survey on the University of Saskatchewan’s website should they want to complete it online. The participants in Phase 1 of this study will be identified with a unique number so that the data obtained from the quantitative part of the study can be linked to the qualitative part. The Master List will be appropriately destroyed when the data collection has been completed. The data from the quantitative surveys will be entered into SPSS 18 for analysis. This data will be used to facilitate the conduction of the semi-structured interviews.

Telephone interviews will be arranged with the selected participants. (These interviews will be recorded with a digital voice recorder.) These will be semi-structured interviews that are anticipated to last around 30 minutes. The algorithm for the interview is attached as Appendix G.

A template for some of the questions, or “prompts” that will be used during the focus group is as follows:

1. Do you think you had sufficient training in men’s health issues?
 - a. If yes – how, when and where did the training take place?
 - b. If no – Which areas / topics do you think you should have had more teaching on?
2. Where, when and how did you learn most of what you know about men’s health?
3. Do you think there should be a dedicated men’s health curriculum in
 - a. Undergraduate teaching?
 - b. Family medicine residency training?
 - c. Is men’s health a significant part of your practice? Explain.
4. What topics should be included in a men’s health curriculum?
5. How should these topics be delivered / taught?
 - a. Didactic?
 - b. Practicums / rotations?
 - c. Workshops?
 - d. Case / problem based learning?
 - e. Other?

Figure 2. Prompts for Focus Group interviews.

As is often the case in qualitative research, flexibility will be built into the interviews as new questions and themes might emerge during the study period, both through the quantitative survey, as well as, through the interviews with the Program Directors and the Focus Groups.

Transcription of the interviews and focus group will be done and entered into the NVivo 8 software program. The software will be used to make the handling and coding of the data easier. Data will be analyzed for recurrent themes. Triangulation of the data will take place through exploration of documents on the websites of the selected programs about their program and their curriculum as well as through the interviews with the Program Directors and the Focus Groups. The data obtained from the quantitative questionnaires in Phase 1 will also be used in the triangulation.

Phase 2 will consist of a theoretical construction of a new Men’s Health Curriculum for Family Medicine Training Programs and will be based on data gathered in the first phase of the project.

In Phase 3, a copy of the newly constructed curriculum will be sent to the “Expert Panel” for their review. It will be accompanied by a separate questionnaire (Appendix B), which will require them to make general comments about the proposed curriculum, as well as, answer specific questions. The researcher will ask the participants to respond via e-mail as much as possible to avoid the use of self-addressed envelopes with stamps from different countries.

10. Storage of Data

All data, paper as well as digital, will be stored in a sealed container in the research storage room at the West Winds Primary Health Centre. This storage room is always locked and only Dr. Vivian Ramsden, Director, Research Division of the Department of Academic Family Medicine, has access to this room. Data will be stored for a minimum of five years. When the data is no longer required, it will be appropriately destroyed.

11. Dissemination of Results

Data will be analyzed and returned to the Program Directors for reflection and comments prior to it being put into a publishable article format. It is anticipated that each phase will produce a unique article. These documents will be part of a manuscript-style thesis for the student’s PhD. The manuscripts will also be submitted to peer review journals for publication.

12. Risk, Benefits, and Deception

This will be a minimal risk study. No deception will take place and the only perceived risk is that individual programs might be identified by means of quotations that are used in the publication of the study. Quotations will be selected in such a way as to not identify the participants. This is, however, a small group of participants and, although the nature of the information is not of a very sensitive nature, different programs might still be identifiable through these quotations. The portions of the manuscript containing these quotations will be sent to the individual participants for review. These participants can at this point ask for editing of the section, or even ask that their quotation be removed from the script.

There will be no immediate benefit to any participants. Long term benefits might be the availability of a men’s health curriculum that will be made available to participants to use in their own training programs.

13. Confidentiality

The participants in Phase 1 of this study will be identified with a unique number so that the data obtained from the quantitative part of the study can be linked to the qualitative part. The Master List will be appropriately destroyed at the conclusion of the research project. It will not be possible to omit any names that come up during the

transcription of the interviews. The names of the persons and Training Programs will however not be used in any of the reporting documentation that result from this study.

Participants in Phase 3 will also be assigned a unique number, but in this case it does not have to be linked to any other data. This will only be done to de-identify the participants. The list used for blinding members of the Expert Panel will be kept separately and stored appropriately.

14. Data/Transcript Release

Participants will review the quotations that will appear in written or oral presentations of the material, and will grant permission to the researcher to include those quotations. This permission will be recorded in writing using a transcript release form. (Appendix E.)

15. Debriefing and feedback

Participants have the option to request a copy of the final reports / articles. The articles will hopefully be published and be available to anyone that might be interested in it.

16. Required Signatures

Dr. Andries Muller (PhD Student)

Date

Dr. Vivian Ramsden (Supervisor)

Date

Dr. Gill White (Supervisor)

Date

Shari McKay (Applied statistician)

Date

Dr. Nick Ovsenek
Associate Dean: Grad Studies
College of Medicine

Date

17. Required Contact Information

Dr. Andries Muller (PhD Student)
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Fax: (306) 966- 6164
e-mail:

Men's Health Curriculum in Family Medicine Training in Canada (page 1 of 3)

1 What is the name of your University?		
2 What is the name of your site / unit?		
3 What is your role in this program?	Program Director	<input type="checkbox"/>
	Site Director	<input type="checkbox"/>
	Other (please specify)	<input type="checkbox"/>
4 Is your site considered	Rural / Remote	<input type="checkbox"/>
	Urban	<input type="checkbox"/>
	Other (please specify)	<input type="checkbox"/>
5 How many residents do you have on average in your site per year?		<input type="text"/>
6 Does your program have a women's health rotation?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
7 If yes to Question 6, how many weeks are dedicated to this over the 2 year program?		<input type="text"/>
8 Do you have dedicated goals & objectives for the Women's Health rotation?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Does not apply	<input type="checkbox"/>
9 Do you have a Women's Health Curriculum that you follow for your teaching sessions / academic days?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
10 Does your program have a Men's Health rotation? (If no - skip to question 13)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
11 If yes to Question 10, how many weeks are dedicated to this over the 2 year program?		<input type="text"/>
12 Do you have dedicated goals & objectives for the Men's Health rotation?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Does not apply	<input type="checkbox"/>
13 Do you have a Men's Health Curriculum that you follow for your teaching sessions / academic days?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
14 If you answer "No" to questions 10 and/or 13, where do your residents get most of their training in Men's Health?	Urology rotation	<input type="checkbox"/>
	Women's Health rotation	<input type="checkbox"/>
	Other (please specify)	<input type="checkbox"/>

Please turn over.

Men's Health Curriculum in Family Medicine Training in Canada (page 2 of 3)

Which of the following topics are important to cover in a men's health curriculum in a 2 year Family Medicine training program? Please check all that apply, but keep in mind realistic time and resource constraints.

Column A - check all that apply. Column B - rank your top 10 from 1 - 10, from the ones you checked in column A

	A	B
15 Testicular Cancer		
16 Prostate Cancer		
17 BPH		
18 Testicular Torsion		
19 Erectile Dysfunction		
20 Andropause		
21 Premature Ejaculation		
22 Peyronie's Disease		
23 Male Infertility		
24 Contraception for Men		
25 UTI in Men		
26 Penile Cancer		
27 Phimosis		
28 Paraphimosis		
29 Gynecomastia		
30 Undescended Testes		
31 Varicocele		
32 Hydrocoel		
33 STI's		
34 Other Sexual Dysfunction		
35 Balanitis		
36 Priapism		
37 Genital Trauma		
38 Epididimitis		
39 Prostatitis (Acute)		
40 Prostatitis (Chronic)		
41 Klinefelter Disease		

Please do the same for the following conditions: Please check all that apply, but keep in mind realistic time and resource constraints.

Column A - check all that apply. Column B - rank your top 10 from 1 - 10, from the ones you checked in column A

	A	B
Male specific issues of:		
42 Cardiovascular		
43 Respiratory		
44 Neurological		
45 Musculo-skeletal		
46 Gastro-intestinal		
47 Skin		
48 Alcoholism		
49 Abuse		
50 Psychiatry		
51 Eyes and ENT		
52 Pharmacology		

Men's Health Curriculum in Family Medicine Training in Canada (page3 of 3)

Which of the following procedures should be taught to residents?
(Again keep in mind realistic time and resource constraints)

In column A - check all that apply. In column B - rank your top 5 from 1 - 5

	A	B
53 Newborn Circumcision		
54 Adult Circumcision		
55 Vasectomy		
56 Bladder Catheterization		
57 Prostate Biopsy		
58 Drain Hydrocoele		
59 Reduce Paraphimosis		
60 Intra-cavernosal Injections		

Are there any other topics that you consider important for a Men's Health Curriculum that have not been mentioned yet? Please list them.

Thank you for your time completing this questionnaire!
Your help with this research is very much appreciated.

Andries Muller

A Men's Health Curriculum for Family Medicine Residency Training Programs in Canada

Evaluation of a Draft Version of a Newly Designed Men's Health Curriculum - Expert Panel Review

Please read through the draft version of a newly designed men's health curriculum that has been included with this questionnaire and then proceed to answer the following questions to the best of your ability: (If you already have a men's health curriculum in your training program, please answer the questions as though you do not have a curriculum in place at the moment.)

1. Has this curriculum achieved its stated Goals and Objectives? If so, in what ways? If not, what would be required to do so?
2. Would this curriculum benefit your Training Program? If so, in what ways? If not, what would be required before it would?
3. Are there any components of a Men's Health Curriculum that are missing from this curriculum? Describe.
4. Are there any components in this Curriculum that you think should not be included in a Men's Health Curriculum? Describe.
5. Do you foresee any obstacles or challenges in delivering such a curriculum in your training program? Please comment on the following.
 - a. In general?
 - b. Financial?
 - c. Administratively /Human Resources?
 - d. Time?
 - e. Physical Resources / Facilities?
 - f. Other?
6. Who do you foresee teaching / facilitating such a curriculum in your institution? Please comment on their qualifications.

7. Any further comments:

Thank you for your time and effort!

Letter of Invitation/Cover Letter

You are invited to participate in a research project entitled **A Men's Health Curriculum for Family Medicine Residency Training programs in Canada**. Please read this Letter of Invitation/Cover Letter carefully and feel free to ask any questions you might have.

The purpose of this study is to gain an understanding of the quality and quantity of Men's Health topics that are addressed in Family Medicine Residency Training programs in Canada. The information gathered through this project will be used to design a Men's Health Curriculum that will reviewed by a group of International Experts/Family Physicians. Completion of the questionnaire should not take longer than **10 minutes**.

The potential benefit to participating is that a copy of the Men's Health Curriculum which results will be made available for use in the various Family Medicine Training Programs. The results of this project will be submitted as partial completion of my PhD in Health Sciences, submitted to appropriate conferences for presentation and submitted to appropriate peer reviewed journals for publication.

Your participation is voluntary and you can answer only those questions that you are comfortable with. The information that is shared will be held in strict confidence and discussed only with the research team. You may withdraw from the research project for any reason up until the point that the data has been aggregated and the Master List appropriately destroyed. If you withdraw from the research project, any data that you have contributed will be destroyed at your request.

All data will be stored in a sealed container in the locked research storage room at the West Winds Primary Health Centre for a minimum of five years. When the data is no longer required, it will be appropriately destroyed.

Some participants may be invited to take part in an interview and for this reason participants will be given a unique identification number (UIN) so that the data obtained from this survey can be linked to the interview later. The Master List with the UINs and names will be appropriately destroyed when the research project is completed.

If you have any questions concerning the research project, please feel free to ask at any point; you are also free to contact the researchers at the numbers provided if you have other questions. This research project has been approved on ethical grounds by the University of Saskatchewan's Behavioural Research Ethics Board on _____. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office (+1 306-966-2084). Out of town participants may call collect.

I understand that completion and submission and/or mailing of the survey constitute implied consent; thus, giving the researcher permission to use the information gathered in the ways described above.

Thank you for your participation in this study.

Andries Muller. Department of Academic Family Medicine. Tel: +1 (306) 655-4200.

Gill White (Co-Supervisor). Department of Academic Family Medicine. Tel: +1 (306) 766-3872.

Vivian R Ramsden (Co-Supervisor). Department of Academic Family Medicine. Tel: +1 (306) 655-4214.

CONSENT FORM FOR INTERVIEWS

You are invited to participate in a research project entitled **A Men's Health Curriculum for Family Medicine Residency Training programs in Canada**. Please read this Consent Form carefully and feel free to ask any questions you might have.

The purpose of this study is to gain an understanding of the quality and quantity of Men's Health topics that are addressed in Family Medicine Residency Training programs in Canada. The information gathered through this project will be used to design a Men's Health Curriculum that will be reviewed by a group of International Experts/Family Physicians.

You are specifically being invited to participate in a semi-structured telephone interview. The interview will be recorded with a digital recorder for transcription purposes only. However, you may ask to have the digital recorder turned off at any time. The questions will focus around the need for a Men's Health Curriculum in Family Medicine Training Programs and what should be included in such a curriculum. Quotations will be selected in such a way as to not identify the participants. The portion of the manuscript in which the quotation to be used is found will be sent to the individual participant for review. You will have the opportunity to edit the section(s) or ask that your quotation be deleted.

Your participation is voluntary and you can answer only those questions that you are comfortable with. Each participant will be given a unique identification number (UIN) so that the data obtained may be linked to the survey. The Master List with the UINs and names will be appropriately destroyed when the research project is completed.

The information that is shared will be held in strict confidence and discussed only with the research team. You may withdraw from the research project for any reason up until the point that the data has been aggregated and the Master List appropriately destroyed. If you withdraw from the research project, any data that you have contributed will be destroyed at your request.

The potential benefit to participating is that a copy of the Men's Health Curriculum which results will be made available for use in the various Family Medicine Training Programs. The results of this project will be submitted as partial completion of my PhD in Health Sciences, submitted to appropriate conferences for presentation and submitted to appropriate peer reviewed journals for publication.

All data will be stored in a sealed container in the locked research storage room at the West Winds Primary Health Centre for a minimum of five years. The Consent Forms will be stored separate and apart from the data collected. When the data is no longer required, it will be appropriately destroyed.

If you have any questions concerning the research project, please feel free to ask at any point; you are also free to contact the researchers at the numbers provided if you have other questions.

This research project has been approved on ethical grounds by the University of Saskatchewan's Behavioural Research Ethics Board on _____. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office (+1 306-966-2084). Out of town participants may call collect.

Thank you for your participation in this study.

Andries Muller. Department of Academic Family Medicine. Tel: +1 (306) 655-4200.
Gill White (Co-Supervisor). Department of Academic Family Medicine. Tel: +1 (306) 766-3872.
Vivian R Ramsden (Co-Supervisor). Department of Academic Family Medicine. Tel: +1 (306) 655-4214.

I have read and understood the description provided; I have had the opportunity to ask questions and my questions have been answered. I consent to participate in the research project entitled, **A Men's Health Curriculum for Family Medicine Residency Training programs in Canada**, understanding that I may withdraw my consent at any time during the study period. A copy of this Consent Form has been given to me for my records.

Name of participant

Date

Signature of Participant

Signature of Researcher

Please fax this signed Consent Form to +1-306-655-4895 (Confidential Fax Line).
The researcher will sign it and fax it back to you.

CONSENT FORM FOR FOCUS GROUPS

You are invited to participate in a research project entitled **A Men's Health Curriculum for Family Medicine Residency Training programs in Canada**. Please read this Consent Form carefully and feel free to ask any questions you might have.

The purpose of this study is to gain an understanding of the quality and quantity of Men's Health topics that are addressed in Family Medicine Residency Training programs in Canada. The information gathered through this project will be used to design a Men's Health Curriculum that will reviewed by a group of International Experts/Family Physicians.

You are specifically being invited to participate in a Focus Group. The Focus Group will be recorded with a digital recorder for transcription purposes and a video camera will also be used during the focus groups for accuracy purposes. However, you may ask to have the digital recorder and/or video camera turned off at any time. The questions will focus around the need for a Men's Health Curriculum in Family Medicine Training Programs and what should be included in such a curriculum. Quotations will be selected in such a way as to not identify the participants. The portion of the manuscript in which the quotation to be used is found will be sent to the individual participant for review. You will have the opportunity to edit the section(s) or ask that your quotation be deleted.

Your participation is voluntary and you can answer only those questions that you are comfortable with. Each participant will be given a unique identification number (UIN) so that the data obtained may be linked to the survey. The Master List with the UINs and names will be appropriately destroyed when the research project is completed.

The information that is shared will be held in strict confidence and discussed only with the research team. Please realize that in the case of a Focus Group confidentiality cannot be guaranteed. Please respect the confidentiality of the other members of the group by not disclosing the contents of this discussion outside the group, and be aware that others may not respect your confidentiality.

You may withdraw from the research project for any reason up until the point that the data has been aggregated and the Master List appropriately destroyed. If you withdraw from the research project, any data that you have contributed will be destroyed at your request.

The potential benefit to participating is that a copy of the Men's Health Curriculum which results will be made available for use in the various Family Medicine Training Programs. The results of this project will be submitted as partial completion of my PhD in Health Sciences, submitted to appropriate conferences for presentation and submitted to appropriate peer reviewed journals for publication.

All data will be stored in a sealed container in the locked research storage room at the West Winds Primary Health Centre for a minimum of five years. The Consent Forms will be stored separate and apart from the data collected. When the data is no longer required, it will be appropriately destroyed.

If you have any questions concerning the research project, please feel free to ask at any point; you are also free to contact the researchers at the numbers provided if you have other questions. This research project has been approved on ethical grounds by the University of Saskatchewan's Behavioural Research Ethics Board on _____. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office (+1 306-966-2084). Out of town participants may call collect.

Thank you for your participation in this study.

Andries Muller. Department of Academic Family Medicine. Tel: +1 (306) 655-4200.

Gill White (Co-Supervisor). Department of Academic Family Medicine. Tel: +1 (306) 766-3872.

VR Ramsden (Co-Supervisor). Department of Academic Family Medicine. Tel: +1 (306) 655-4214.

I have read and understood the description provided; I have had the opportunity to ask questions and my questions have been answered. I consent to participate in the research project entitled, **A Men's Health Curriculum for Family Medicine Residency Training programs in Canada**, understanding that I may withdraw my consent at any time during the study period. A copy of this Consent Form has been given to me for my records.

Name of participant

Date

Signature of Participant

Signature of Researcher

Please fax this signed Consent Form to +1-306-655-4895 (Confidential Fax Line).
The researcher will sign it and fax it back to you.



NAME OF STUDY: A Men's Health Curriculum for Family Medicine Residency Training Programs in Canada

I, _____, have reviewed the complete transcript of my personal interview in this study, and have been provided with the opportunity to add, alter, and delete information from the transcript as appropriate. I acknowledge that the transcript accurately reflects what I said in my Interview/Focus Group with Dr. Andries Muller. I hereby authorize the release of this transcript to Dr. Muller to be used in the manner described in the Consent Form.

I have received a copy of this Data/Transcript Release Form for my own records.

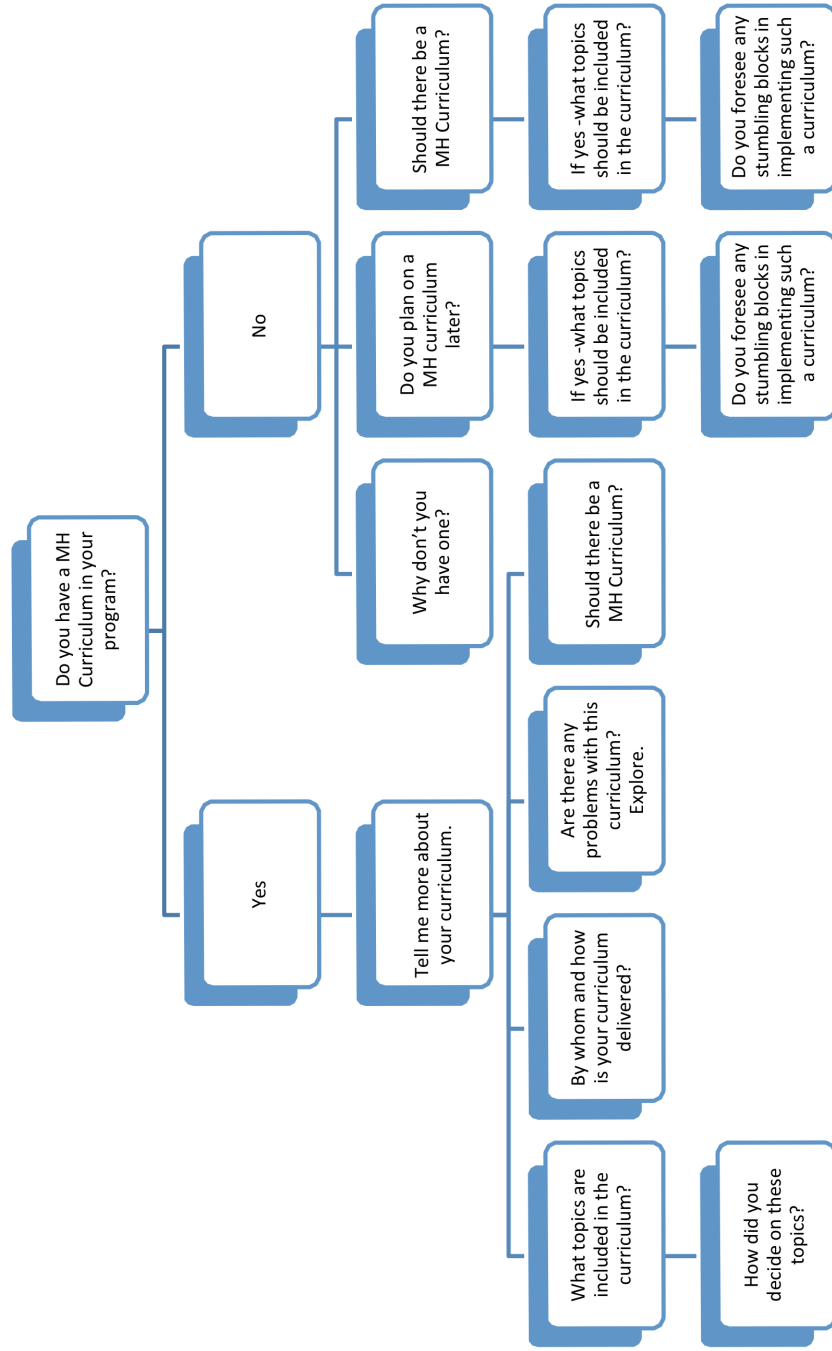
Name of Participant

Date

Signature of Participant

Signature of researcher

Semi-structured Interview Guide for Interviews with Program Directors



Appendix G

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September 19, 2010



Box 5000 RPO University
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Saskatoon SK S7N 4J8 Canada
Telephone: (306) 966-2975
Facsimile: (306) 966-2069

To: Vivian Ramsden, Department of Academic Family Medicine, University of Saskatchewan

Andries Muller, Department of Academic Family Medicine, University of Saskatchewan

Date: October 13, 2010

Re: A Men's Health Curriculum for Family Medicine Residency Training Programs in Canada (Beh 10-252)

Thank you for submitting the description of your project entitled, *A Men's Health Curriculum for Family Medicine Residency Training Programs in Canada*. This memorandum certifies that your project is exempt from the ethics review process. This exemption is based on the fact that the work you are doing falls under the category of quality assurance. This decision is based on the information provided to the ethics office on September 28, 2010.

It should be noted that though your project is exempt of ethics review, your project should be conducted in an ethical manner (i.e. in accordance with the information that you submitted). It should also be noted that any deviation from the original methodology and/or research question should be brought to the attention of the Behavioral Research Ethics Board for further review.

Sincerely,

Dr. John Rigby, Chair
Behavioural Research Ethics Board
University of Saskatchewan